

Persistent Inequalities

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Persistent Inequalities

Wage Disparity under Capitalist Competition

By

Howard Botwinick



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For Tony Mazzocchi (1922–2002)

*Whose courage, integrity and creativity were an inspiration to all labour
activists who had the privilege of working with him. He is deeply missed.*



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New Preface (2017 Edition)

In this new edition of *Persistent Inequalities* the body of text is largely unaltered except for very minor editing. The main additions to the book primarily include numerous additional footnotes throughout the manuscript which provide additional, updated support for the arguments presented in the first edition. Because recent research supporting the emerging classical approach to the analysis of *real* capitalist competition is quite extensive, the writer has included a discussion of much of this new material in an Appendix to Chapter 5. Finally, a fairly extensive Afterword has been added in order to analyse what has happened to working people and the US labour movement since this book was originally published in 1992. As a result of the increasingly unfettered reign of neoliberalism for the past several decades, this is a rather grim story for the vast majority of working people within the US and across the globe.

In addition to the personal and intellectual acknowledgements which were already listed in the original preface to this book, several people must now be added. First, I would like to thank both Charles Post and Sebastian Budgen for their continued encouragement and support for this new edition. Indeed it was Sebastian who initially suggested that I should consider putting together a new edition of *Persistent Inequalities* for the Historical Materialism series which has been undertaken by Brill. Here I would also like to thank Charles Post for organising several interesting panels on my book for the Historical Materialism Conferences in New York and London (2015) and in Toronto (2016). The animated discussions and continuing interest in my work were very gratifying and gave me renewed energy to undertake this project.

I would also like to thank Adolph Reed Jr., Charlie Post and Randi Storch for providing valuable feedback on my Afterword to the new edition, and I am also indebted to Anwar Shaikh and Jamee Moudad for helping to catch me up with the latest developments in the emerging classical approach to capitalist competition. Last of all, I would like to thank my wife, Jutta, for her unwavering and loving support throughout this project and many other endeavours that I have undertaken over the past 30 years as both an activist and scholar. I could not have done any of this without her.

Preface and Acknowledgements (1993 Edition)

The gestation period for this book was a lengthy one. I first began thinking about the issues of competitive wage determination back in the 1970s when I was helping the United Electrical Workers (UE) organise an electronics sweatshop in Verona, Wisconsin. As a recent graduate from the economics programme at the University of Wisconsin, the contrasts between the brutal realities of factory life and the idyllic theories of neoclassical economics could not have been more startling. As I soon discovered, however, my confrontation with established wage theories did not end with neoclassical economics. After six years as a labour activist and skilled machinist in numerous industrial settings, I became more and more convinced that union organisation could make a critical difference to the lives of working people even within highly competitive sectors of the economy. Thus, I also began to question radical theories of labour market segmentation which suggested that many of these unorganised industries were simply too competitive to allow for significant improvements in wages and working conditions.

As time went on, I increasingly found that Marx's classical analysis of both the capitalist labour process and competitive wage determination appeared to be the most powerful approach to all of these issues. Following my stint in the labour movement, I therefore decided to pursue more formal theoretical training in labour economics and Marxist political economy at the New School for Social Research. Several years later, the first version of this work appeared as my doctoral dissertation.

As a result of my graduate experience, I would like to thank the New School for providing a serious intellectual space for the study of Marxist political economy within its graduate economics programme. As external political pressures from the right continue to increase, I only hope that the New School will continue to find the courage to stand against the wind and hold to its commitment to Marxist economics as an important alternative school of thought. Although many have attempted to use the demise of Eastern Europe to discredit all fundamental critiques of the capitalist economy, the current economic crisis stands as a grim reminder of the serious underlying contradictions that continue to work their devastating effects on our economy. It is also quite clear that traditional mainstream economists have had great difficulty explaining the continuing economic stagnation of the past two decades. Equally important, those who are even vaguely familiar with Marx's writings on socialism should know that the draconian regimes in Eastern Europe had very little in common with Marx's profoundly democratic views on socialism.

A deeper investigation of his arguments concerning the material and political foundations for the successful construction of democratic socialist societies would also reveal that the eventual decline of these totalitarian regimes is actually a powerful vindication of Marx's original historical arguments. It is one of this decade's terrible ironies that at the moment when more humane and more democratic alternatives to capitalist economies clearly need to be considered, the very discussion of fundamental alternatives is now seriously under attack.

As readers will immediately see, individual intellectual acknowledgements must begin with Anwar Shaikh. In fact, it was his pathbreaking work in Marxist political economy that ultimately gave me the sorely needed motivation to return to academia and enroll in graduate studies at the New School. As numerous footnotes will reveal, Shaikh's work on the dynamics of capitalist competition has had a critical impact on my own analysis of competitive wage determination. At the New School, I would also like to thank Willi Semmler, who served on my dissertation committee and whose work on classical theories of competition was also an important influence.

Many people were kind enough to read the entire manuscript when it was still in dissertation form. For their generosity and many helpful suggestions, I would like to thank Clare Battista, Robert Cherry, Laurie Clements, Chuck Davis, Chris Gunn, Patrick Mason, Rhonda Williams, and Hugo Radice. I would particularly like to thank John Weeks, William Darity Jr., Ann Bastian, and Kim Moody, whose careful reading and detailed comments proved to be extremely helpful in subsequent revisions of this work. I am also indebted to Jack Repcheck, the former economics editor at Princeton University Press, for his continued encouragement and support.

Last, but certainly not least, I would like to thank Bill Russell for his unrelenting friendship and very able computer assistance, Chris Sheppard for his graphics work, and Karen Verde for her thorough copyediting.

All remaining errors are the responsibility of the author alone.

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Introduction

Any reader who still believes that, somehow or other, the theory of equal wages may be true, should consult a document like the *Annual Report* of the Massachusetts Bureau of Statistics of Labor, for 1883, and ascertain the number of rates of wages paid to unskilled labour in a single state ... [T]he daily wages of ordinary laborers engaged in the manufacture of boots and shoes varied from seventy-five cents to two dollars, seven different rates being mentioned, differing from one another by almost two hundred per cent. And yet a comparison is made between the accuracy of political economy and physics.

— RICHARD ELY, *The Past and Present of Political Economy*



Breaking the Impasse

Since the end of the nineteenth century, the existence of persistent wage inequality among workers with similar levels of skill has presented a serious obstacle to the development of a viable theory of competitive wage determination. According to orthodox wage theory, if capital and labour markets are truly competitive, these unwarranted wage differentials should tend to be eliminated unless they are required to offset nonpecuniary advantages or disadvantages between various jobs. Thus, equally qualified workers who labour under similar working conditions should tend to receive roughly equal compensation.

Despite the claims of traditional theorists, however, far too many empirical studies have repeatedly discovered evidence of persistent patterns of substantial inter- and intra-industry wage differentials that have been extremely difficult to reconcile with the neoclassical theory of competitive wage determination.¹ Commenting on some of the most important wage studies from the past two decades, Martin Segal notes:

¹ See Dunlop 1948; Garbarino 1950; Slichter 1950; Reynolds 1951; Lester 1952; Bowen 1960; Dalton

[T]aken as a group, they can be interpreted as showing that wages of employees in the same occupational groups and with other similar human capital characteristics display significant differences; ... that *ceteris paribus*, wages are likely to be higher in industries that are relatively concentrated or have relatively high profits; and that there is no evidence that the wage differences of equally qualified workers under different employers are equalizing in nature, that is that they compensate for non-pecuniary characteristics of the particular jobs.²

Equally important, although neoclassical theory also suggests that wage differentials that are largely due to race and gender discrimination should eventually disappear under competitive pressure, these more pernicious forms of inequality have also managed to stand firm against the equalising winds of competition.³

Given these long-standing and rather glaring discrepancies between competitive theory and the empirical evidence, discussions of wage differentials have largely been forced into two very different directions. Until the recent development of efficiency wage theory, neoclassical economists adhering to the model of perfect competition and the marginal productivity theory of wages tended to either dismiss these persistent differentials as short-run aberrations⁴ or unsuccessfully explain them away by pointing to differences in schooling and other 'personal characteristics'.⁵ At the other end of the spectrum, institutional and radical labour economists tended to reject the competitive hypothesis altogether by relying on theories of monopoly power and internal (or segmented) labour markets to explain these empirical anomalies.⁶

Over the years, radical and institutional labour economists have repeatedly criticised neoclassical theorists for failing to recognise that industrial concentration, unionisation, and many other 'noncompetitive' factors have a significant and persistent impact on the real-world wage structure. In return, neoclassical economists have criticised their critics for developing highly indetermin-

and Ford 1978; Pugel 1980; Howell 1982, 1989; Reich 1984; Dickens and Katz 1987; and Krueger and Summers 1987.

2 Segal 1986, p. 399. Other discussions of the inability of orthodox wage theory to explain these wage patterns can be found in Katz 1986; Dickens and Katz 1987; and Freeman 1988.

3 Darity 1989.

4 Hicks 1963; Cartter 1959; Reder 1962.

5 Becker 1964; Weiss 1966a; and Mincer 1974.

6 Dunlop 1948, 1957; Lester 1952; Kerr 1955; Doeringer and Piore 1971; Gordon 1972; O'Connor 1973; Bluestone et al. 1973; Edwards 1979; and Reich 1984.

inate analyses of wage differentials that fail to recognise the importance of competitive market forces. Thus, while both sides have developed important insights into the wage determination process, there has appeared to be no satisfactory way to reconcile these different levels of analysis. Neither side has been able to advance a theory of competitive wage determination that has the power to explain the persistence of inter- and intra-industry wage differentials while retaining the importance of competition as a fundamental regulating dynamic within the modern capitalist economy.

Over the past few years, this continuing theoretical impasse has provided a major impetus for the veritable explosion of efficiency wage theories that represent the latest attempt to reconcile these unruly wage differentials with orthodox theory. Yet, although labour economists from a wide range of perspectives are hoping that these new theories will finally allow competitive wage theory to successfully confront the reality of persistent inequality within the labour market, this book argues that efficiency wage theories have actually inherited serious weaknesses from both sides of the previous debates. Thus, in addition to borrowing the indeterminate arguments of monopoly power from the institutionalists, these theories also rely on a highly distorted view of the capitalist labour process that is largely inherited from neoclassical economics.⁷

As is often the case within economics, however, the above theoretical disputes are not merely academic. If the dominant theoretical explanations for persistent inequality within the labour market cannot give a consistent and compelling account of how these inequities are continually reproduced, it becomes far more difficult for policy makers and social activists to develop effective strategies to counteract them. Indeed, it would be hard to find more dramatic testimony to the woeful inadequacies of current economic theory than the devastating events of the past decade.

As a result of the repeated failure of Keynesian policies to confront the deepening economic stagnation of the 1970s, the Reagan and Bush administrations were given a free hand to pursue their nineteenth-century, *laissez-faire* agenda by default. Thus, in the 1980s the heralded normative goals of 'competitiveness' were doggedly pursued with an ideological zeal that has been unmatched in the post-World War II era. Contrary to neoclassical theory, however, as the decline of organised labour was often brutally accelerated by both corporate and government attacks, and as both capital and labour markets became increasingly

7 A detailed discussion of efficiency wage theories is presented at the end of chapter 2. For a very useful survey of these theories see Katz 1986. For an interesting Marxist critique of efficiency wage theory along similar lines as this author see Fine 1998.

deregulated, labour market outcomes did not become more equitable. As Bluestone and Harrison⁸ have clearly shown, inequality among wage and salary earners grew substantially as the growth of mid-level jobs declined and low-wage jobs accelerated. Indeed, in a recent study, *The State of Working America*, Mishel and Frankel reported that the fraction of the workforce earning poverty-level wages increased from 25.7 to 31.5 percent between 1979 and 1989.⁹ And this was before the current recession set in!

Despite glowing administration claims to the contrary, Mishel and Frankel's comprehensive study concludes that the so-called economic recovery of the 1980s led to a serious deterioration in the living standards of the majority of working people in the United States. Contrary to neoclassical theory, although labour productivity continued to increase during this period, workers did not reap the benefits. Real average hourly wage rates declined by 9 percent and hourly benefits plummeted by 13.8 percent.¹⁰ As hourly wages declined, working people did not freely opt for more leisure time in the assumed neoclassical fashion. Instead, working families desperately attempted to maintain their previous standard of living by adding more family members to the labour force and by working an average of ninety-five additional hours per year.¹¹ Finally, although the decline in official unemployment rates appeared to indicate that labour market conditions were improving, these authors show that the substantial growth of involuntary part-time and temporary work, as well as multiple job holding, has ultimately placed 'at least a fifth of the workforce in situations of labour market distress'.¹²

Yet, while real wages declined and working people scrambled to make ends meet, the incomes of the top 1 percent of the population rose by a stunning 74 percent, and the salaries of corporate CEO's grew by 19 percent.¹³ Even *Business Week* appeared to be embarrassed when statistics for 1990 showed that the average chief executive of a major US corporation was now making 85 times the pay of a typical American factory worker. They were particularly embarrassed to report that a good number of CEO's like Stephen Wolf of United Airlines collected \$18.3 million in annual salary and other perks despite the fact that UAL's profits fell by 71 percent.¹⁴ Thus, as the 1980s wore on, it became

8 Bluestone and Harrison 1986; 1990a.

9 Mishel and Frankel 1991.

10 Mishel and Frankel 1991, p. 1.

11 Mishel and Frankel 1991, p. 71.

12 Mishel and Frankel 1991, p. 129.

13 Mishel and Frankel 1991, p. 119.

14 'The Flap over Executive Pay', *Business Week*, 6 May 1991. The article also noted that Wolf's

increasingly clear that the competitive standard of equal wages for equal work was becoming far more difficult to come by under the growing pressures of competition.

While the 1980s provide a powerful historical critique of the theories and policies of orthodox economics, it is important to recognise that institutional and radical labour economists were also seriously buffeted by the increasing winds of competition. Indeed, the ravages of international competition within heavy 'core' sectors like auto and steel have posed serious questions for the long-held radical assumption of 'impenetrable barriers to entry' that supposedly surrounded many of these 'oligopolies'. Within these alternative frameworks, it was generally assumed that economies of scale, prohibitive levels of fixed capital investment, and carefully maintained excess capacity guaranteed that the monopoly profits of these US industries were effectively secured. Yet, over the past decade, firms from advanced nations like Japan and Germany and even newcomers from South Korea and Brazil have somehow managed to shatter those barriers and aggressively *displace* a sizable portion of that existing plant capacity.

Equally puzzling, institutionalists and radicals had repeatedly argued that substantial on-the-job training and the need for internal structures of capitalist control had induced core firms to develop internal labour markets that tended to shield high-wage primary workers from labour market competition. Yet, over the past decade, these same firms have been busy dismantling these long-term arrangements with a vengeance. Two-tiered wage packages have been widely introduced, job classification systems and union work rules have been repeatedly attacked, and multiple sourcing and contracting out have now become routine methods of minimising labour costs.¹⁵

Perhaps the most troubling result of the labour market segmentation paradigm has been the apparent inability of many radical labour economists to develop viable strategies for militant, adversarial unionism in today's increasingly competitive environment. Up to now, most progressive economists within the United States have tended to assume that previous union wage gains in industries like steel, auto, and meat-packing were largely dependent on high

pay was 1,200 times what a new flight attendant earned at United Airlines in each of the last five years! By the year 2000, the ratio of CEO to worker compensation incredibly reached over 400 to 1 just before the dot com bubble burst. By 2011, CEO compensation had settled back down to merely 200 times (!) what the average worker was earning (Mishel et al. 2012).

15 Moody 1988; Bluestone and Harrison 1990a.

levels of market concentration and the resulting monopoly pricing power of these large firms. Thus, as these core industries have become increasingly besieged by both foreign and domestic competition, these same economists have been hard pressed to provide coherent alternatives to corporate calls for wage concessions, team concepts, and other forms of nonadversarial labour relations that are now supposedly required to 'beat the competition'.¹⁶

This kind of fatalistic resignation to the forces of capitalist competition should come as no surprise. The logic of labour market segmentation theory has repeatedly led radical economists to seriously downplay the potential for unionisation to address the long-standing problems of substandard wages and working conditions within very large sectors of the US economy that were traditionally considered to be highly competitive. Indeed, high levels of competition were argued to be one of the key defining characteristics of the chronically low wage 'periphery'. As more and more US industries have now come under growing competitive pressures, however, the continued failure to develop viable labour strategies to effectively confront the forces of capitalist competition is proving to be devastating for the labour movement.

In sum, from both the theoretical and social policy perspectives, there is a crying need for an alternative theory of competitive wage determination. Based on over one hundred years of empirical evidence, a viable theory must be able to explain how substantial wage differentials among comparable workers can quite obviously persist under highly competitive conditions. Equally important, it must provide a clear analysis of how unions have repeatedly managed to play a critical role in the final patterning of the wage structure despite these ongoing competitive forces. Ideally, if we can better understand how wage inequality is continually generated by the dynamics of the capitalist labour market, we can better understand how to combat the divisive competitive pressures that continually tend to arise among workers. Moreover, once we understand the ongoing social costs of competition, we may finally be able to escape both the idealism of neoclassical theory and the fatalism of dual economy models.

Toward a Theoretical Alternative

One of the main contentions of this book is that the failure of virtually all of these previous attempts to explain the persistence of labour market inequality

16 See Botwinick 1998.

is rooted in one of the few points of agreement among all of these otherwise opposed schools of thought. Namely, that wage differentials among workers of similar quality will only tend to persist when competition in the capital and/or labour markets is *seriously restricted*. Thus, rather than attempting to discover how competition might, in itself, be able to explain many of these wage differentials, labour economists have generally been forced to either ignore the empirical phenomena or deny the importance of competitive forces within the modern economy.

This text constructs a way out of this apparent impasse by showing that the classical Marxian analysis of capitalist competition between and within industries can be used to explain how ongoing capitalist competition can actually sustain and accommodate certain systematic patterns of inter- and intra-industry wage differentials among workers of similar levels of skill. Indeed, we will show that the dual processes of capital and labour market competition can often *militate against* the equalisation of wage rates for comparable workers.

To develop this alternative framework, this book relies heavily on work by recent writers who have utilised Marx's distinctive analysis of capitalist competition to try to break a similar impasse that exists between theories of competition and the empirical evidence of differential profit rates between and within industries.¹⁷ By carefully reconstructing and extending Marx's analysis of capitalist competition, Shaikh, Semmler, and Clifton have shown that many phenomena previously considered to be evidence of imperfect competition and monopoly power can be explained within the framework of ongoing capitalist competition. Most important, Shaikh and Semmler have shown that many of the observed patterns of profit rate and profit margin differentials across industries and across firms within industries can be directly anticipated from the classical Marxian model of competition.¹⁸

Once it is recognised that competition normally results in differential profit rates among firms, it then becomes possible to develop a theory of a similar set of potential wage differentials among workers who are employed in these firms. Once we are no longer forced to interpret the existence of differential profit and wage rates as immediate evidence of monopoly power, we can then go on to investigate how the forces of ongoing capitalist competition may also act to set strict limits to these variations in wages, prices, and profits. Therefore, one of the main thrusts of this work will be to extend the above Marxian model

17 Shaikh 1980b, 1981b, 1982a, 2008, 2016; Semmler 1982, 1984; Clifton 1977, 1983; Weeks 1981; Bina 1985; and Moudud et al. 2013.

18 Shaikh 1981b, 1982a, 2008, 2016; and Semmler 1982, 1984.

of competition to the question of inter- and intra-industry wage differentials among workers of similar skill levels.

By shifting the discussion back up to the more abstract level of the theory of competition itself, we will show that Marx's analysis of capitalist competition provides a very powerful framework that can allow for substantial wage variation without denying the importance of competitive forces that continue to regulate those variations. Indeed, we will construct a framework for the analysis of *competitive wage determination* that can incorporate many of the most important insights of radical and institutional economists and can also directly account for many of these disturbing patterns of inter- and intra-industry wage differentials. The key point, of course, will be to accomplish this task without being forced to fall back on the increasingly dubious assumption that we have been living in a period of monopoly capitalism where many of the intrinsic dynamics of capitalist development have somehow been suspended within crucial sectors of the economy.

Abstracting from the very important problem of labour market discrimination based on race, ethnicity, and/or gender, we will argue that many of these persistent patterns of wage differentials are largely the result of three key dynamics: (1) the ongoing process of capitalist competition and technical change that continually generates differential conditions of production, productivity, and profitability between and within industries; (2) the continual regeneration of a reserve army of unemployed workers who are constantly driven to seek out employment at substandard wages in order to survive; (3) the uneven efforts of organised workers to raise their wage rates within the strict limits defined by both these differential conditions of production and profitability and by the constant downward pressures of the reserve army.

Implications for the Analysis of Discrimination

Although we will be discussing how different forms of worker organisation can have an important and persistent impact on the wage structure, our discussion will nonetheless remain at a fairly high level of abstraction. Thus, we will unfortunately not be able to develop a detailed discussion of how these patterns of inequality can be seriously aggravated and even partially transformed by various forms of race and/or gender discrimination.

At the risk of oversimplifying these complex dynamics, it may be useful to initially argue that persistent wage inequality resulting from discrimination is caused primarily by the complex interaction of two key dynamics. First, there is the generation of jobs with substandard working conditions and below-average

wage rates. And second, there is the discriminatory assignment of a disproportionate number of people of colour and women to these low-paying jobs.¹⁹ Although this book will be able to explain how the dynamics of capitalist competition and the reserve army of labour repeatedly lay the foundation for the constant generation of these low-paying jobs, a useful analysis of the question of discriminatory assignment would require a much more concrete discussion of the social and historical forces that have led to particular forms of discrimination against women and people of colour within different capitalist nations. As discussed briefly in chapter 4, this would require a detailed analysis of the historical development of the different components of the reserve army of labour, paying particular attention to how various forms of discrimination and subordination have critically shaped the conditions of entry of both women and people of colour into the capitalist labour force.²⁰

Over the past two decades, a good deal of important historical work has been done to ferret out the institutional and social forces that have played a critical role in the perpetuation of race and gender discrimination within the labour market. Unfortunately, neither radical nor mainstream discussions of discrimination have been able to satisfactorily explain how these discriminatory wage differentials continue to be reproduced under the pressures of capitalist competition.²¹ As in the case of wage differentials in general, many radical discussions of discrimination have tended to minimise the importance of capitalist competition by suggesting that the divide-and-conquer machinations of monopoly capitalists are the primary force behind the continual reproduction of labour market discrimination. As Milkman²² has pointed out, however, these kinds of arguments not only tend to ignore the fact that capitalist firms often have contradictory interests, but they also tend to minimise the role that organised workers have also played within this process.

19 For similar suggestions concerning the development of a careful analysis of discrimination, see Ryan 1981, Friedman 1984, and Darity 1989.

20 For example, in order to develop a complete analysis of the establishment and reproduction of occupational segregation by sex, Milkman has usefully identified three critical areas of analysis. In addition to taking account of 'the impact of women's family position on their relation to the paid labour market', she also argues that the complex and often contradictory roles of both capital and *organised labour* must also be carefully considered (Milkman 1980, p. 107). For an interesting historical analysis of race, class, and gender within the US labour market, see Amott and Matthaei 1991.

21 See Darity 1989.

22 Milkman 1980.

By carefully developing our more abstract argument, we hope to provide the foundations for a more satisfactory approach to the issue of discrimination that will finally enable us to systematically link these more concrete social factors back up to the ongoing dynamics of capitalist competition and accumulation. As in the case of wage differentials in general, this alternative path may eventually allow us to show that discrimination is, unfortunately, *perfectly consistent with high levels of ongoing capitalist competition*.²³ Once again, the overall effects of competition may be far less equitable than what both radical and orthodox arguments have tended to assume. Finally, by carefully disentangling the generally inequitable effects of capitalist competition and uneven worker organisation from the more concrete dynamics of race and gender discrimination, we may eventually be able to develop more effective strategies for combatting all of these persistent problems.

On Heterogeneous Labour

Because this volume is concerned primarily with wage differentiation among workers with similar skill levels, we will not be discussing the issue of heterogeneous labour in any great detail. Although the controversy over whether or not skilled labour actually produces proportionately higher amounts of value and surplus value (relative to unskilled labour) is an important topic within Marxian political economy, it is not directly relevant to our discussion.²⁴ Nevertheless, there are several implications of Marx's analysis of heterogeneous labour that do need to be considered here.

It is well known that Marx's analysis of the value of labour power suggests that skilled labour will generally tend to receive higher wage rates relative to unskilled labour. This is primarily because the extra costs of training skilled labour power must also 'enter pro tanto into the total value spent in its production'.²⁵ It is important to note, however, that this argument does not suggest that workers with similar levels of skill will all receive a uniform wage rate that directly corresponds to the particular costs of production of their labour power. As in the case of prices of production, Marx argues that these differential costs of

23 Over the past few years, several writers have begun to develop this alternative approach to the analysis of discrimination which is based on a more classical Marxist analysis of capitalist competition. See Darity 1989; Williams 1991; and Mason 1992, 1993.

24 For useful discussions of the central issues in this debate, see Roncaglia 1974; Rosdolsky 1977; Rowthorn 1980b; and Fine 1998.

25 Marx 1967a, p. 172.

production will essentially form 'centres of gravity' around which actual wage rates will continually tend to fluctuate. Thus, within any particular group of similarly skilled workers, variations in wage rates will generally tend to occur.

In fact, it would be appropriate to argue that these differential costs of production for various types of labour power provide our first set of parameters for the ongoing variation of wage rates within capitalist labour markets. And, as in the case of the regulation of market prices by prices of production, Marx's analysis of the real processes of capitalist regulation through tendential regulation and systematic variation within limits does not at all preclude the development of substantial variations in wages, prices, and profits. Indeed, unlike orthodox models of general equilibrium, we will soon see that systematic deviations in all of these variables are a critical component of the dynamic processes of capitalist regulation.

This is important because it has often been suggested that systematic wage differentials between 'core' and 'peripheral' sectors of the modern US economy provide strong evidence that wage rates generally bear very little (if any) relation to skill levels. Within Marx's dynamic analysis of competitive wage determination, however, this is not necessarily the case. Although there may be very strong evidence that wage rates are generally higher in core sectors across all skill levels, it may still be the case that different skill levels continue to provide important centres of gravity for the wage levels of similar workers across the entire economy. Thus, although both unskilled and skilled workers in the core consistently receive higher wage rates relative to corresponding workers in other sectors, it may nevertheless be the case that the average wage level of all unskilled workers *throughout the economy* has a lower centre of gravity relative to that of skilled labour. Hence, while these systematic patterns of wage differentiation seriously compromise orthodox wage theory, they may be perfectly consistent with Marx's argument.

Although the above argument suggests that different skill levels may continue to play an important role in the overall patterning of the contemporary wage structure, it is critical to remember that Marx had compelling reasons to argue that substantial skill differentials were rapidly becoming a thing of the past within the great mass of working people. Indeed, Marx repeatedly argued that the development of the capitalist labour process would generally tend to lower overall skill levels through ever-increasing levels of mechanisation and the detail division of labour. As early as the mid-1800s, it was already his impression that 'the distinction between skilled and unskilled labour rests in part on pure illusion, or to say the least, on distinctions that have long since ceased to be real ... (and) in part on the helpless condition of some groups of the working class, a condition that prevents them from exacting equally with the rest

the value of their labour-power'.²⁶ Thus, while Marx continued to recognise the theoretical importance of skill differentials when they really did exist, he was quite sceptical concerning the actual extent of these differentials and their long-term prognosis.²⁷

Although many sociologists and economists have attempted to suggest that Marx's arguments of deskilling and homogenisation of the working class have been greatly weakened (first, by the rapid growth of white collar and service sector occupations, and more recently by the computerised workplace), Harry Braverman's path-breaking study of the contemporary labour process provides convincing evidence that deskilling continues to remain the dominant tendency within most sectors of the modern capitalist economy.²⁸ Equally important, Braverman also points out that the very notion of 'skill' itself has become so transformed and degraded within the modern economy that a worker who merely requires three weeks of training is now considered to be 'semi-skilled' by the US Department of Labor.²⁹

In sum, while the evidence of persistent wage differentials does not automatically invalidate Marx's claim that real skill differentials may continue to provide important centres of gravity for the overall wage structure, radical economists also have good reasons to be sceptical of the neoclassical claim that wage differentiation is *primarily* the result of individual differences in skill and quality. In fact, in an extensive study of inter-industry wage differentials within the United States, Howell (1982) has shown that the size of the wage differential between workers in highly capital intensive industries versus workers in highly labour intensive industries grew from 20 percent in 1947 to over 77 percent in 1978. Yet, during the same period, overall skill differentials throughout manufacturing generally tended to *narrow*.³⁰

26 Marx 1967a, pp. 198–9.

27 As we shall see in chapter 4, there is good evidence to suggest that Marx ultimately intended to develop a more detailed analysis of skill differentials and competitive wage determination in general *after* he finished his analysis of capitalist competition in volume 3 of *Capital*. Unfortunately, this project was never completed.

28 Braverman 1974. A helpful discussion of the continuing debates around the issue of deskilling can be found in Thompson 1983. More recently see Parker and Slaughter 1994; and Botwinick 1998.

29 Braverman 1974, pp. 430–1. As Albelda (1985) correctly points out, conventional notions of 'skill' can also be seriously distorted by race and gender bias. For a fairly comprehensive discussion of the empirical difficulties of measuring skill levels across the economy, see Spenner 1983.

30 Howell 1982, pp. 150–1.

Comparing Our Results to Orthodox and Radical Economics

When our own argument concerning wage differentials and capitalist competition is completed, we will compare our results to both neoclassical and radical discussions of wage determination. As noted earlier, one of the most interesting results of this investigation will be that we will finally be able to incorporate some of the most important insights from radical and institutional discussions within a determinate theory of competitive wage determination. Thus, not only will we be able to develop a more powerful explanation for many of the existing patterns of wage differentiation, but our argument will no longer be vulnerable to the neoclassical critique of indeterminacy.

Neoclassical Economics

[O]nly through the principle of competition has political economy any pretension to the character of a science. So far as rents, profits, wages, prices, are determined by competition, laws may be assigned for them. Assume competition to be their exclusive regulator, and principles of broad generality and scientific precision may be laid down, according to which they will be regulated.

– J.S. MILL, *Principles of Political Economy*

As the quotation from John Stuart Mill clearly suggests, the attempt to develop a systematic analysis of the competitive forces within the capitalist economy has deep classical roots. Given that both Marx and early neoclassical economists were heavily influenced by the classical arguments of Smith, Ricardo, Mill, and others, there are bound to be a number of superficial intersections between these two divergent schools of thought. And, of course, one of these points of convergence concerns the notion that competition plays a key regulating role within the capitalist economy. Because Marx's analysis of competition and accumulation is fundamentally distinct from orthodox theory, however, this is where the similarity ends.

Although we will be arguing that capitalist competition between and within industries continues to set important limits to wages, prices, and profits within all sectors of the modern economy, the results of this competition will often be diametrically opposed to those that are anticipated by neoclassical economics. What is perhaps most important is that Marx's distinctive discussion of competition and accumulation suggests that the free and unbridled forces of capitalist competition will generally have a devastating effect on virtually all aspects of working class life. Thus, in sharp contrast to neoclassical theory, the

collective struggle of workers to defend and improve their wages and conditions can hardly be perceived as irrational or socially counterproductive. On the contrary, given the inherent and ongoing clash of interests between capital and labour, the class struggle over wage rates must become an essential component of Marx's theory of competitive wage determination.

Continuing our disagreement with orthodox economics, our analysis also suggests that workers and their unions can have a significant impact on the wage determination process despite the ongoing forces of capitalist competition and accumulation.³¹ At the aggregate level, for example, we will argue that unions can and do have important consequences for labour's share of the net product. Although increases in the productivity of labour within very specific sectors of the economy *do* provide important limits to increases in the general wage level, these wage increases are not automatically determined by movements in the productivity of labour (marginal or otherwise). Indeed, as both the history of the industrial revolution in England and the more recent events of the past three decades clearly attest, in the absence of a well-organised labour movement, increases in the productivity of labour can often be attended by *declining* real wages.

At the level of inter- and intra-industry wage differentials, we will show once again that workers' collective actions can produce important positive results. While capitalist competition and differential conditions of productivity form crucial limits to these wage differentials, there is substantial room for unions to have a sizable effect within these parameters. Perhaps most surprising, although unions generally have a negative impact on capitalist profitability, we will show that unions can often achieve sizable wage increases in single industries without causing any of the harmful 'monopoly effects' that are anticipated by orthodox theory.

Finally, from Marx's analysis of the aggregate labour market, we will also see that the presence of permanent underemployment has profound effects on the real dynamics of labour mobility and the equalisation of wage rates. Contrary to both orthodox and radical discussions, we will argue that significant patterns of wage differentiation can be sustained for prolonged periods of time despite the presence of substantial labour mobility.

31 For the standard neoclassical perspective on the long-run wage effects of trade unions, see Cartter 1959; Rees 1977; and Ashenfelter and Johnson 1972. For a more recent discussion of the impact of unions see Bennett and Kaufman 2008.

Radical Economics

Although this book argues that workers' collective action can have a very significant effect on both the general wage level and inter-industry wage differentials, this analysis will nonetheless maintain that the actions of both labour and capital remain fundamentally constrained by the laws of competition and accumulation. Thus, while vindicating the potentiality of workers' collective action, this work will also pose a partial critique of many radical and Marxist arguments that have tended to suggest that the primary and overriding determinant of the wage rate is the shifting balance of power between capital and labour.

Within many of these radical frameworks, for instance, it is often argued that upturns in the business cycle periodically allow workers to acquire the power to raise wages beyond the limits of capitalist profitability and thus precipitate serious downturns in the economy.³² As noted earlier, however, we will continue to maintain that movements in the real wage will normally tend to be limited by movements in the productivity of labour and therefore remain within the confines of capitalist profitability. To support our argument we will also point to recent empirical research that has carefully translated Keynesian income accounts into Marxian value accounts to show that the Marxian rate of surplus value has been rising throughout the post-World War II period.³³ Thus, contrary to what both neoclassical and radical theorists might expect, this rising rate of surplus value indicates that increases in real wages have consistently fallen short of increases in the productivity of labour.

Other critical differences between our analysis and the radical argument will, of course, concern the discussion of inter-industry wage differentials. Although there are a number of variations on the theme of the 'dual economy',³⁴ most labour market segmentationists have generally argued that the modern division of the capitalist economy into 'core' (monopolistic) and 'periphery' (competitive) sectors has laid the foundation for parallel divisions within the labour market.³⁵ As noted earlier, these economists have argued that firms in the 'core' sectors of the economy are essentially risk free (or 'eternal') and possess the market power to raise prices and profits above competitive

32 See Boddy and Crotty 1975; Glyn and Sutcliffe 1972; Gordon 1980; Bowles, Gordon, and Weisskopf 1983; and Bluestone and Harrison 1990a.

33 Shaikh 1987 and Mosley 1985.

34 For example, Averitt 1968; O'Connor 1973; Edwards 1979.

35 Three excellent and highly critical reviews of the dual and segmented labour market arguments are presented in Rubery 1978; Hodson 1982; and Friedman 1984. See also Fine 1998.

levels.³⁶ From this it follows that unions and workers in these industries also have the ability to achieve higher wages and better working conditions relative to workers employed in more competitive sectors of the economy. Thus, while unions can achieve significant results within core industries, their analysis also suggests that there is generally very little unions can do to address the low wages and substandard conditions within the 'periphery' without 'profound challenges to the present structure of the capitalist economy'.³⁷

Within our discussion, however, we will generally argue that a firm's ability to incorporate higher wage rates into its cost structure is primarily determined not by 'monopoly power' but by its relative efficiency within the industry. We will also point to research that raises serious doubts about the empirical evidence for substantial, long-term differential profit rates between concentrated and unconcentrated industries.³⁸

Thus, unlike the segmentationists, we will argue that unions can have a significant effect on wages and working conditions within many of the so-called 'competitive' sectors as well as within the 'core'. Indeed, Marx's analysis of capitalist competition provides good reason to suggest that the presence of lower wages within many of these competitive firms may have much more to do with the lack of union organisation, or the presence of inefficient conditions of production, than with the difficulty of raising wages in firms that do not possess monopoly pricing power.

Solving Some Anomalies

In addition to providing a very different analysis of the overall dimensions of workers' power in the determination of general and inter-industry wage rates, we will also show that a number of important anomalies presented by the labour market segmentation (LMS) literature can now be explained by utilising Marx's analysis of competition between and within industries. Two of the most serious anomalies concern the above-mentioned assertion that divisions within the labour market will tend to closely parallel core/periphery divisions within the economy as a whole.

36 Edwards 1979, pp. 38, 85.

37 Gordon, Edwards and Reich 1982, p. 41.

38 See Shaikh 1980b, 1982a, 2008, 2016; Semmler 1984; Demsetz 1973; Brozen 1973; and Gale and Branch 1982. For very useful reviews of these studies, see Semmler 1984 and Shaikh 2016. See also Moudud et al. 2013.

Within the United States, several writers have noted that this assumed parallelism has often been seriously violated when unions have somehow managed to force the development of 'primary' labour market conditions in 'peripheral' industries that were supposedly too unstable, too unprofitable, or too competitive to absorb them.³⁹ Thus, although the more recent LMS literature has been forced to concede that unions may actually be able to establish primary labour markets within the periphery, these writers have not been able to logically explain these occurrences without seriously violating their original premises concerning the dual economy.⁴⁰

As noted, our analysis does not rely on monopoly power or any other critical assumptions of the dual economy model. Thus, successful unionisation within the 'periphery' no longer presents a serious analytical problem. While unions may clearly be more difficult to organise and maintain within industries that have a large number of small firms, our analysis does not suggest that low levels of market concentration, per se, will ultimately prevent these industries from incorporating higher wage rates into their cost structures.

Finally, other related anomalies have appeared when labour economists have attempted to apply the theory of the dual economy and segmented labour markets to Western Europe.⁴¹ If many of the economies within Western Europe must also be classified as 'monopoly capitalist' or 'dual economies' according to LMS criteria, differential conditions of market power, profitability, and structural control should have resulted in similarly segmented labour markets. What researchers have discovered, however, is that the patterns of segmentation and differentiation within the European working class are not only quite diverse, but are often in direct contradiction to arguments based on the centrality of the core/periphery distinction. As a result, many economists have now begun to question the central importance of the dual economy as the key underlying factor in explaining differential wages and working conditions within the working class.⁴²

39 Before the 1930s, the mining, garment, and clothing industries were the most important examples of this anomaly. In the post-WWII period, examples of successful unionisation in 'competitive' industries could also be found in construction, longshoring, and trucking. (See Levinson 1966; Friedman and Friedman 1979; Friedman 1984; Kahn 1979; Gordon et al. 1982; and Reich 1984). Unfortunately unions have declined significantly in all of these industries since the 1980s.

40 See Edwards 1979; Berger and Piore 1980; Gordon et al. 1982; and Reich 1984.

41 See Berger and Piore 1980; Wilkinson 1981; and Lever-Tracy 1984.

42 Lever-Tracy 1984 and Wilkinson 1981.

Due to the absence of a viable alternative theory of competition, however, this growing disenchantment with dualism has unfortunately pushed many radical writers to increasingly rely on a case studies approach to segmentation within the labour market. Thus, although these writers have continued to uncover valuable empirical information on particular labour markets within different capitalist nations, there has been a tendency to move even farther away from the project of developing a determinate theory of wage differentiation that is based on a systematic analysis of capitalist competition and accumulation.

There is no doubt that differential conditions of exploitation and large groups of extremely low paid workers continue to exist within every major capitalist nation today. In fact, evidence suggests that wage inequality may currently be growing within a number of capitalist countries, including even Sweden.⁴³ The key question, of course, is why? As noted earlier, this book will argue that systematic foundations for persistent wage inequality are largely generated by the ongoing process of capitalist competition and technical change, the constant reproduction of a reserve army of labour, and uneven worker organisation. Thus, references to a 'new stage' of dualism (or monopoly capitalism) are no longer required.

Within the determinate limits of capitalist accumulation and competition, we will also show that various levels and forms of worker resistance will clearly result in a variety of patterns of segmentation and differentiation within the working classes of different capitalist nations. The key analytical point, however, is that we will attempt to lay the foundation for the analysis of these 'relatively autonomous' institutional and historical factors while remaining within a determinate theory of competitive wage determination. By attempting to locate these more concrete historical factors within a systematic hierarchy of determinations, we therefore hope to construct an alternative to the case studies approach where institutional factors are necessarily given primary determinacy, and the analysis of general laws of tendency becomes extremely difficult.

Outline of the Argument

Our classical Marxian analysis of competitive wage determination is necessarily composed of four major parts. The first part (chapter 2) provides a crit-

43 Bluestone and Harrison 1990b.

ical survey of the important economic debates around the issue of inter- and intra-industry wage differentials. The central point of this literature survey is to show precisely how the general acceptance of the neoclassical framework of perfect/imperfect competition has repeatedly led to the continued impasse between theories of competitive wage determination and the empirical evidence of persistent wage differentials among workers of similar skill. (Nonacademic readers who may want to immediately proceed to the author's own arguments can skip this lengthy chapter with little loss of continuity).

Chapters 3 and 4 begin our own discussion of competitive wage determination at the most abstract level of analysis by establishing the general relationship between the laws of capitalist accumulation and the dynamics of the aggregate labour market. Thus, chapter 3 abstracts from both the differentiation of capital and the differentiation of labour in order to concentrate on how the dynamics of capitalist accumulation normally tend to regulate and limit movements in the general wage level. Chapter 4 goes on to show how the continual reproduction of the various sectors of the reserve army has important implications for the discussion of labour mobility and the equalisation of wage rates.

The third part of this volume (chapter 5) develops our discussion of Marx's analysis of capitalist competition and differential profit rates. Within this section, we will review and elaborate upon recent literature that has attempted to utilise Marx's analysis of competition to explain the empirical phenomena of differential profit rates between and within industries. Chapter 5 also carefully develops the very sharp contrasts that exist between Marx's analysis of *real capitalist competition* and the neoclassical theories of perfect and imperfect competition.

The final part of our argument, in chapters 6 and 7, will then build on these previous levels of analysis to arrive at a systematic discussion of capitalist competition and differential wage rates.

At the end of this long analytical journey, we hope to have constructed an analysis of competitive wage determination that can help us to understand a great deal more about the disturbing phenomena of persistent wage inequality within capitalist labour markets. The persistence of these largely unexplained inter-industry wage differentials and of such painfully large numbers of workers who continue to work so hard for so very little has been one of the key stumbling blocks in the development of a unified labour movement within the United States. Equally important, these low-paying jobs are becoming an increasing reality that is taking on alarming proportions.

At the conclusion of this work, we will utilise our analytical framework to present a number of concrete suggestions for how the labour movement can

most effectively attempt to raise the living standards of these low-paid workers. To do this, however, it is first necessary to have a very clear understanding of what unions can and cannot expect to accomplish within the confines of capitalist competition and accumulation.

Continuing Attempts to Square the Circle (Or, Competitive Theory Confronts Differential Wage Rates)

Before developing our own analysis of competitive wage determination, it will be useful to review the more important modern debates concerning the issue of persistent wage differentials among workers of similar skill and ability. The primary purpose of this chapter is to show that virtually all previous attempts to develop a theory of competitive wage determination that could properly address these intractable anomalies have been severely constrained by the neoclassical framework of perfect and imperfect competition; hence, the need for a new formulation of the discussion based on Marx's very different analysis of real capitalist competition.

Since the development of classical political economy in the eighteenth century, the theory of wage determination in general, and of wage differentials in particular, has been one of the most important and controversial issues within economics. Along with the theory of value, the development of competing theories of wage determination has been closely linked to two key questions that have plagued economists since the industrial revolution. Do the market forces of the capitalist economy automatically ensure that workers will receive their 'fair share' of the output they produce? And if not, is it possible for workers, through collective action, to significantly increase their share of the product within the limits imposed by those same market forces?

Early Neoclassical Wage Theory

When Marx developed classical value theory to its logical conclusions and indicted capitalism for the exploitation of labour, he helped to spark the development of an entirely new type of economics that began with the marginalist revolution in the late 1800s.¹ In response to Marx's penetrating critique and to the growing trade union movement, one of the key tasks of this new paradigm was to develop a theory of value and wage determination which

¹ Tolles 1964, p. 189.

argued that market forces would guarantee workers were paid their rightful share of the net product.²

Thus, at the turn of the century J.B. Clark introduced his influential book, *The Distribution of Wealth*, by stating:

The welfare of the labouring classes depends on whether they get much or little; but their attitude toward other classes – and therefore, the stability of the social state – depends chiefly on the question, whether the amount that they get, be it large or small, is what they produce. If they create a small amount of wealth and get the whole of it, they may not seek to revolutionize society; but if it were to appear that they produce an ample amount and get only a part of it, many of them would become revolutionists, and all would have the right to do so. The indictment that hangs over society is that of ‘exploiting labour’.³

With the above task clearly in mind, neoclassical economists set out to develop their own theory of wage determination and the distribution of income. Referring once again to the work of J.B. Clark, Allen M. Cartter provides a useful summary of the key components of the early marginal productivity theory of wages:

First, there is the premise that the rational employer, in the attempt to maximize profits, will be guided by the marginal productivity of a factor in determining the relationship between the factor’s return and its employment. This is essentially a dual assumption that the principle of diminishing returns is operative, and that employers are rational ... Secondly, there is the premise of perfect competition, so that market forces tend to equalize rates of return for all factors over time. And thirdly, there is the premise of long run general equilibrium in all markets. Given these three premises, we can then say that if there is a fixed supply of labour in the market, the level of wages will be determined by the marginal product of labour.⁴

Thus, as any first-year student of economics has dutifully learned, workers will generally tend to receive wages that are equivalent to the value of the marginal product of their labour. Following this premise, if there are differentials in the

2 Dunlop 1957 and McNulty 1980, p. 75.

3 Clark 1902, p. 4.

4 Cartter 1959, p. 19.

wages of various workers, these will tend to reflect either individual differences in skill and ability, or differences in the non-pecuniary advantages and disadvantages between various employments. Finally, if the productivity of labour should increase, workers will automatically receive the appropriate increment in their real wages.

As far as the marginalists were concerned, it was therefore quite obvious that Karl Marx's accusation of exploitation was completely unfounded and that unions were simply not necessary. Indeed, if some workers did manage to increase their wages through unions, these increases would tend to reduce employment within the unionised sectors and therefore increase labour supply and *lower* wages in the nonunion sectors. Not only were unions unnecessary, but they would ironically tend to create an inequitable distribution of income among *wage earners*.⁵

Although the ascendancy of marginal economics clearly represented a great ideological coup for those who hailed capitalism to be a truly equitable and maximally efficient economic system, many heterodox writers contend that the development of economics as a scientific explanation of the capitalist economy took a significant leap backward from the previous analysis of the classical economists. In addition to the abandonment of any serious attempt to develop a coherent theory of value⁶ and the subsequent appearance of problems of internal logic that were unearthed by the Cambridge capital controversies,⁷ all branches of neoclassical economics were irrevocably tied to the framework of perfect competition and general equilibrium. For the theory of competitive wage determination, this framework proved to be particularly problematic. In order to explain why this was the case, a brief discussion of scientific methodology is required.

The Theory of Perfect Competition: Abstraction as Idealisation

As in other sciences that have been developed to explain phenomena that are difficult to perceive through the senses alone, economists attempting to understand the mystifying workings of the capitalist economy have been required to accomplish two major tasks. At the most abstract level, economics requires the construction of general theories that are capable of delving beneath the

5 See Friedman and Friedman 1979 and Lewis 1963, p. 194.

6 Dobb 1973 and Meek 1956.

7 Harcourt 1972 and Garegnani 1983.

confusing complexities of the actual phenomena to derive the more general and most essential laws of the capitalist economy. The second task requires the careful appropriation of the more richly determined concrete phenomena by explaining how the previously derived general laws act to regulate and set limits to the movements of these more concrete factors. If the abstract theory has been constructed properly, it should allow us to achieve an understanding of the real workings of the economy that surpasses what our senses had already perceived (or misperceived) before the theory was developed. Although neo-classical economists have always understood the scientific necessity for the creation of abstract theory, the early marginalists who developed the foundations of modern neoclassical theory unfortunately tended to confuse the above process of abstraction with the much less useful process of *idealisation*.⁸ Rather than attempting to derive the essential laws of the capitalist system that tend to regulate the economy sometimes by means of (and oftentimes *in spite of*) the many concrete factors that actually exist, neoclassical economists created an ideal set of laws and conditions that would tend to operate only when many of these real factors were assumed *not to exist*. Moreover, many of the most essential characteristics of the capitalist system that should have been included in an abstract analysis of how the market system is essentially regulated were either seriously distorted or totally ignored.⁹ Factors such as uncertainty and imperfect knowledge, business cycles and partial crises were left out of the abstract model altogether. Although many of these economists hoped to incorporate much of these phenomena at a later stage of analysis, this proved rather difficult given that the model they had created was in direct contradiction to these essential elements.¹⁰

As a result of this process of idealisation, the early neoclassical economists created a theory to describe things as they would have liked them to be, not things as they essentially were. Nowhere is this more clear than with the neo-classical theory of 'perfect' competition. Rather than attempting to assess how *real* capitalist firms with highly imperfect knowledge and increasingly large

8 Shaikh 1980b, 1982a, 2016.

9 Kaldor 1972; Shaikh 1980b, 1982b; and Eatwell and Millgate 1983. For more recent discussions of these problems in neoclassical theory see Moudud et al. 2013 and Shaikh 2016.

10 Keynesian economics and the theories of imperfect and monopolistic competition were eventually developed to address some of these long-standing inadequacies within the original neoclassical theories of perfect competition and general equilibrium. During the last two decades, these same shortcomings have resulted in a veritable deluge of 'more realistic' economic models based on disequilibrium dynamics, game theory, and efficiency wage rates.

amounts of fixed capital attempt to survive in a perpetual war with their direct and indirect competitors, the neoclassical economists developed a theory of competition which argued that the assumptions of perfect information, perfect mobility, and infinitesimally small firms were required in order to understand the essential dynamics of capitalist competition.¹¹

Although imperfect competition was later developed to address some of the most glaring inadequacies in the original theory, the theory of perfect competition was retained as the logical starting point for the analysis of 'highly competitive' markets.¹² Even in the most modern textbooks, the contradiction between neoclassical theory and the real-world phenomena of capitalist competition remains so severe that the very definition of the term 'competition' continues to have the direct opposite meaning from the conventional business usage. Rather than viewing this discrepancy with real phenomena as a serious distortion that must be corrected, however, most neoclassical economists argue that such contradictions are the unavoidable result of the scientific method of 'abstraction'.¹³

For example, in his widely used micro textbook, Edwin Mansfield writes the following *without irony*:

When business executives speak of a highly competitive market, they often mean one in which each firm is keenly aware of its rivalry with a few others and in which advertising, styling, packaging and other such commercial weapons are used to attract business away from them. In contrast, the basic feature of the economist's definition of perfect competition is its impersonality. Because there are so many firms in the industries, *no firm views another as a competitor*.¹⁴

Thus within neoclassical theory, the highest form of competition is essentially *no* competition at all! The perpetual and often violent struggle of capitalist

11 McNulty 1967.

12 As Kaufman has also pointed out, the model of perfect competition remains 'the standard frame of reference' in modern labour economics because it is 'far more analytically tractable' when compared to the theory of imperfect competition (1988b, p. 183). Auerbach (1988) makes a similar point within the field of industrial economics.

13 Following Milton Friedman's (1953) credo on 'positive economics', mainstream economists are likely to remind sceptics that the primary criterion for evaluating a theory is its ability to predict, not the realism of its assumptions. For useful critiques of this kind of instrumental positivism, see Caldwell 1982; Katouzian 1980; and Williams 1991.

14 Mansfield 1983, p. 204, emphasis added.

firms attempting to survive within the marketplace by constantly lowering production costs and forcing competitors to the wall has been simply assumed away under the guise of scientific abstraction. Within 'highly competitive' industries, firms are also assumed to possess identical conditions of production – hence identical rates of return. Between such industries, the assumptions of perfect information and perfect mobility of resources necessarily imply that any discrepancies in inter-industry profit rates will tend to be minute and instantaneously eliminated. In effect, within this conception of 'competition', the real-world phenomena of differential profit rates between and within industries that are the direct result of *real* capitalist competition have been eliminated by theoretical construction. Even more serious, the occurrence of significant differentials in profit rates that are not quickly eliminated is considered to be 'evidence' of the lack of competition.

Although this inversion of the realities of capitalist competition has had serious implications for virtually all fields of economic theory, it has been particularly unfortunate for the development of a theory of wage differentials. *By eliminating the possibility that differential profit rates could be a direct result of competition, neoclassical theorists also eliminated the possibility that such profit rate differences might provide an important basis for corresponding differences in competitive wage rates.* And when significant profit and wage differentials did appear, these phenomena could only be 'explained' by reference to market 'imperfections' or monopoly power.

The Inevitable Schism between Theory and Practice

Because neoclassical wage theory was based on a theory of competition that could not begin to describe the essential underlying movements of the system as it really operates, a disjuncture between the theory of wages and real-life phenomena became unavoidable. Economists who attempted to utilise the theory of perfect competition to inform their analysis of wage determination were ultimately forced to make one of two choices. On the one hand, those who were more interested in the construction of economic theory found it necessary to largely divorce themselves from the real world by concentrating on the modification and mathematical refinement of abstract models. When periodically confronted by serious anomalies within the real world, they were then forced to develop various ad hoc adaptations to account for the differences.¹⁵

15 One of the earliest and most sophisticated attempts to refine the marginal productivity

On the other hand, those economists who wished to concentrate on real-world phenomena had to increasingly ignore the theoretical models that were supposedly constructed to provide the scientific framework behind their empirical work. Given the absence of any viable theoretical model to help them interpret their observations, they too were forced to develop ad hoc explanations for the phenomena they discovered. In the end, both sides inevitably came into serious conflict with little hope of resolving their differences or learning from each other's work. By the mid-1950s, John Dunlop described this dismal state of affairs within neoclassical wage theory in the following manner:

In setting the intellectual context of contemporary wage discussion, it should be noted that there has developed a degree of specialization, at least in the United States, in which general economic model builders are not familiar with labour-market developments and in which labour-market specialists are inadequately familiar with central theoretical developments. It should also be reported that labour-market or wage specialists have all been most uncomfortable with 'received' theory.¹⁶

Although trade unionists never took the neoclassical theory of wages very seriously, the marginalist theory of wage determination virtually dominated the economics profession until the end of World War II. At that point, however, the growing discrepancies between theory and reality finally began to seriously disturb a new breed of 'institutional' labour economists who were trying to understand the real movements in the capital and labour markets. At least four key developments were responsible for this resurgence of institutional labour economics.

First, the Great Depression shook the foundations of all branches of neoclassical theory that were tied to the theories of perfect competition and general equilibrium. Wage theory was certainly no exception. Second, and closely linked to this cataclysmic event, was the publication of Keynes's *General Theory*. Although Keynes never entirely divorced himself from the key neoclassical

theory of wages along these lines was Allan Cartter's *Theory of Wages and Employment* (1959). In the mid-sixties, human capital theory ushered in the next wave of adaptations that were required to explain the repeated appearance of disturbing empirical phenomena (see Blaug 1976). The end of this chapter poses the argument that efficiency wage theories represent the most recent attempt to square the circle.

- 16 Dunlop 1957, p. 126. For similar comments on the serious divisions between labour economists working at the level of theory versus those working primarily at the empirical level, see Pierson 1957 and Reynolds 1957a.

postulates concerning marginal productivity theory, his analysis of effective demand within an inherently volatile economy raised some thorny questions for neoclassical theory as a whole. Third, despite the warnings of neoclassical economists that their efforts would be futile, hundreds of thousands of workers were nonetheless determined to have an effect on the distribution of income and were busy forming powerful industrial unions. Last, in the 1930s the development of the theory of imperfect competition finally made it possible to recognise that capital and labour markets were increasingly being characterised by very large institutions on both sides of the bargaining table.

The Theory of Imperfect Competition – Godsend or Albatross?

For the postwar institutionalists, the theory of imperfect competition finally seemed to allow those who wished to work with empirical data to have access to the real world *through theory*.¹⁷ Economists no longer had to be constrained by the absurd propositions of perfect mobility, perfect information, and infinitesimally small firms. Or so it seemed.

One of the key contentions of this volume is that the theory of imperfect competition and even the more radical theories of monopoly capital have not fundamentally broken from the central premises of the theory of perfect competition. This is primarily because these ‘new’ theories were essentially framed as a negative mirror image of the theory they were trying to reject. Thus, the underlying logic of the theories of imperfect competition and monopoly capital could not escape being formed by the logic of the original defective theory. Over the past two decades, a new current of critical literature has utilised Marx’s original analysis of capitalist competition to provide a penetrating critique of this perfect/imperfect duality that exists within both orthodox and radical theories of competition.¹⁸ Although the details of this argument will be elaborated upon in chapter 5, the following examples should briefly illustrate the general thrust of this critique.

The theory of perfect competition argues that for competition to be most effective within various markets, competing firms must be infinitesimally small, and the number of firms must be extremely large in order to assure ‘price taking behavior’.¹⁹ Those economists who rely on the theories of monopoly cap-

¹⁷ Pierson 1957.

¹⁸ See Clifton 1977; Shaikh 1980b, 1981a; Weeks 1981; Semmler 1984; and Bina 1985. See also Moudud et al. 2013, and Shaikh 2016.

¹⁹ Eatwell 1982 and McNulty 1967.

ital and 'imperfect' competition have essentially accepted this quantity theory of competition when they suggest that the existence of only a small number of large firms within an industry is sufficient reason to assume that there is a serious lack of competition.²⁰ Similar points can be made for the concept of 'barriers to entry' that was generated as the mirror image of the original neoclassical concept of 'perfect mobility of capital'.²¹ Finally, both radical and neoclassical economists have tended to view the model of perfect competition as a close approximation to the actual conditions of capitalist competition before the great merger wave in the late nineteenth century.²²

In the final analysis, the theory of imperfect competition retains the concept of perfect competition as its logical and historical base and then analyses real phenomena in terms of their 'distance' from this base. Indeed, the theory of imperfect competition became generally accepted within the neoclassical framework precisely because it allowed for a more realistic description of real-world phenomena without fundamentally threatening the original theoretical constructs. As we will see shortly, this failure to escape from the confines of the perfect/imperfect competition duality proved to be a serious problem for both radical and institutional labour economists.

Postwar Institutionalists: An Initial Attempt at Alternative Theory

One of the first postwar institutionalists who began to suggest that the real (as opposed to 'perfect') conditions of competition within various product markets must have significant consequences for the determination of inter-industry wage levels was John Dunlop.²³ In his 1948 article, 'Productivity and the Wage Structure', he suggested that the following four key factors were responsible for

20 Weeks 1981.

21 Clifton 1977 and Semmler 1984.

22 Thus, for example, in their historical treatment of labour market segmentation, Gordon, Edwards, and Reich write that 'entrepreneurial firms before the merger movement more closely resembled the traditional neoclassical model of the representative competitive firm, taking prices and other variables as given parameters of their environment in the short-run' (Gordon et al. 1982, p. 112). For similar comments, see Baran and Sweezy 1966.

23 For a useful review of the strengths and weaknesses of various postwar institutionalist arguments, see Kaufman 1988b. Kaufman appropriately concentrates on the contributions of John Dunlop, Charles Kerr, Richard Lester, and Lloyd Reynolds. See also Freeman 1988.

the determination of inter-industry wage differentials: changes in productivity and output, the proportion of labour costs to total costs, competitive conditions in the relevant product market, and the changing skill and occupational content of the workforce of an industry.²⁴ Regarding the effects of 'competitive conditions in the product market', he argued:

The character of competition in the product market will influence the extent to which wage earners secure the gains of productivity. A highly competitive product market may immediately transmit any gains in productivity in the form of price adjustments rather than permit the employer to retain higher margins later to be shared with the wage earners in the form of higher wage rates.²⁵

Although Dunlop was not concentrating on the issue of union wage effects, he noted that all of the above factors would act to 'set practicable limits' to collective bargaining.²⁶

In 1950, Joseph Garbarino attempted to extend Dunlop's work by examining the effects of different degrees of product market concentration, changes in physical productivity, and the extent of unionisation on inter-industry wage rates. While his study suggested that high levels of productivity growth and high degrees of industry concentration did tend to have a positive effect on wage rates, the results concerning the effects of unionisation were 'inconclusive'.²⁷

In the same year, Sumner Slichter published the results of an empirical study which also presented serious problems for the long-held assumptions of neoclassical wage theory.²⁸ In his study of various manufacturing industries, Slichter reported that the wages of unskilled male employees appeared to be *adversely* affected by the proportion of women employed within the industry and *positively* affected by both the value added per worker hour and the level of profitability. Within industries where the hourly wages of skilled male workers were high, the wages of unskilled workers also tended to be above-average.

Finally, a decade later, W.G. Bowen's far more extensive study on inter-industry wage levels within US manufacturing once again reinforced Dunlop's claim that product market conditions have a significant effect on wage levels.

²⁴ Dunlop 1948, p. 362.

²⁵ Dunlop 1948, p. 351.

²⁶ Dunlop 1948, p. 360.

²⁷ Garbarino 1950.

²⁸ Slichter 1950.

Between 1947 and 1959, Bowen found that wages generally went up more rapidly in the 'market power sector' and that profit levels were significantly higher when compared to the 'competitive sector'.²⁹

Although these early statistical studies were not as sophisticated as more modern studies yet to come, the institutionalists appeared to have discovered some type of relationship between wage rates and various structural factors like market concentration, the proportion of labour costs to total costs, and differential profit rates. Furthermore, with the publication of H. Gregg Lewis's definitive survey of the major studies on unions and relative wages, it seemed rather obvious that unions were also having significant effects on inter-industry wage differentials.³⁰ Factors other than the marginal productivity of labour clearly were having an impact on inter- and intra-industry wage rates.

Despite these important empirical findings, the institutionalists' continued dependence on the framework of perfect/imperfect competition made it extremely difficult to develop a systematic theory of the underlying limits imposed on wage determination by the general laws of competition. As noted earlier, within the neoclassical conception of competition (to which the institutionalists implicitly adhered), the occurrence of significant differentials in profit and wage rates was to be regarded as evidence of the *lack of competition* (i.e. oligopoly power, etc.), and structural factors like high levels of fixed capital investment were to be interpreted as barriers to effective competition. Without the forces of competition, however, the determination of wages became elusive and highly indeterminate.

In 1957, John Dunlop alluded to this general problem when he stated that 'the new danger of the period is that we shall be so weighted down and intimidated by unique facts and the complexity of data that we shall fail to discern boldly general relationships'.³¹ While some institutionalists tended to ignore the effects of competitive forces by concentrating on the study of internal labour relations within the firm, Dunlop developed one of the most serious attempts to integrate these two levels of analysis. In an attempt to link up the work that Clark Kerr³² and others had developed on internal labour markets with his own analysis of the external forces of product market competition, Dunlop developed the concepts of 'job clusters' and 'wage contours'.³³ Unfor-

29 Bowen 1960, p. 290.

30 Lewis 1963.

31 Dunlop 1957, p. 125.

32 Kerr 1955.

33 Dunlop 1957, p. 135.

unately, the diagramming of these important linkages within the inter- and intra-industry wage structure was not sufficient to establish the relevance of competitive forces within the growing 'oligopoly' sectors.³⁴

If differential wage rates were closely linked to differential profit rates, and higher profit rates were largely made possible through administered pricing and market power, what determined the limits to these wages, prices, and profits?³⁵ To answer this difficult question, an entirely different conception of competition that could allow for the systematic differentiation of profit and wage rates *within the limits of ongoing capitalist competition* was required. As we shall see in chapter 6, with such a theory, it would have been possible to explain how the range of potential variation in wage rates is largely determined by variations in the technical conditions of production between and within industries, and by the ongoing forces of capitalist competition. Without such a theory, however, the institutionalists were forced to rely increasingly on industrial relations discussions of relative bargaining power.³⁶

As a result of this inherent indeterminacy in their analysis, the institutionalists remained vulnerable to criticism from more conservative neoclassical economists who were interested in defending the marginalist theory of wage determination. In 1959, Allan M. Cartter presented an astute methodological critique of the institutionalists' failure to re-establish the importance of competitive forces.

The increased emphasis upon the visible institutionalist aspects of the labour market, while a valuable addition, has tended to overshadow our knowledge of the invisible relationship between wages, productivity and employment ... *If bargaining power were the important wage determinant, we would have wage rates ranging from infinitesimal amounts to infinity, rather than the pattern of wage conformity which actually exists.* Despite the appearance of unilateral wage setting, the existence of rigid financial limitations on the wage paying ability of a firm at any moment, or the

34 For another important attempt to partially address the issue of competitive market forces within the institutionalist framework, see Reynolds 1951, chapter 9.

35 Readers familiar with Marx's essay on 'Wages, Price and Profit' may recognise that this question is similar to the one that Marx attempted to answer in his address to trade unionists over 100 years ago (Marx 1970). There Marx argued against a citizen named Weston who maintained that workers' struggles to raise real wages were futile because capitalists would simply raise their prices in response to any gains that workers might temporarily achieve in money wages.

36 Levinson 1966.

determination of wages by a game of bluff and threat, behind these sensible appearances of the world immediately around us lies a more orderly world of real (though often unseen) market forces.³⁷

In later chapters of his book, Cartter defends both the marginal productivity theory of wages and the theory of perfect competition by stressing that institutionalist critiques of marginalist theory were largely limited to the short-run. In the short-run, he agreed that the limitations of fixed capital inputs obviously tended to complicate the marginalist assumption of the infinite substitutability of inputs. But in the long-run, the general laws of orthodox theory would eventually come into their own.³⁸ Ultimately, Albert Rees correctly pointed out that the orthodox theory of wages was primarily able to survive the 'attacks' by the institutionalists because the critics 'conspicuously failed to develop a coherent alternative theory to put in its place'.³⁹

Although the above neoclassical arguments did provide a substantial methodological critique of the institutionalist perspective, they could not begin to explain the persistent patterns of inter-industry wage differentials among workers of similar quality that had been repeatedly discovered by the institutionalists. It was not until the development of human capital theory and the barrage of empirical studies that immediately followed it that the more orthodox theory of wages was able to regain its hegemony.

The Ascent of Human Capital Theory

Written in 1964, Gary Becker's book on human capital theory initially appeared to be a great ideological and methodological breakthrough for neoclassical theory. Not only did it provide conservative neoclassical economists with the chance to do some of their own empirical work within the labour market, but it developed a choice-theoretic framework that essentially blamed the glaring inequities in the distribution of income not on the system, but on the victims themselves. The argument maintained that if workers really wanted to improve their economic status within the system, all they had to do was to make the rational choice to 'invest' in more education and skill training. This investment

37 Cartter 1959, pp. 6–7, emphasis added.

38 Cartter 1959, chapter 4. For a similar argument supporting the long-run version of neoclassical wage theory, see Reder 1962.

39 Cited in Cain 1976, p. 1230. For a useful discussion of this and other important weaknesses in the institutionalist challenge to orthodox theory, see Kaufman 1988b.

in human capital would improve their marginal productivity, and competitive mechanisms within the labour market would guarantee their rightful rewards. It was clearly up to them.

Given this opportunity to vindicate orthodox theory in the real as well as in the ideal world, neoclassical economists began to do their own empirical studies on the possible causes of inter- and intra-industry wage differentials among workers of apparently similar quality. They were clearly hoping to reaffirm the old marginalist claim that differentials in wage levels will primarily tend to reflect individual differences in skill and productivity levels as opposed to variations in product market conditions.⁴⁰

Only two years after the publication of Gary Becker's work, Leonard Weiss published a highly influential study on the relationship between market power and inter-industry wage rates that directly contradicted institutionalist claims.⁴¹ Using 1960 census data on sex, years of education, and family status as proxies for the 'quality' of labour, Weiss found that 'once personal characteristics are introduced, the relationship between concentration and earnings is no longer significant and is negative about as often as it is positive'.⁴²

Later studies by Ashenfelter and Johnson⁴³ and by Lawrence Kahn⁴⁴ produced similar results concerning the insignificance of concentration ratios as an explanatory variable for wage levels. Although the studies by Weiss and Kahn continued to indicate that unions may have significant consequences for wage differentials, Ashenfelter and Johnson developed a multi-equation estimation technique which suggested that the effect of unions was 'not significantly different from zero'.⁴⁵ All of these studies did argue, however, that education (the key proxy for human capital) was a highly important explanatory factor in the determination of wage differentials. Thus, the hegemony of marginalist theory (via human capital theory) appeared to be reaffirmed. As Kaufman accurately points out:

40 As Glen Cain noted: 'If according to neoclassical theory, workers of equal productivity should receive equal wages, and they do not, then it is natural to expect the defenders of the theory to question whether productivity was really equal; specifically whether the personal productivity factors are completely enumerated and accurately measured' (Cain 1976, p. 1235).

41 Weiss 1966a.

42 Weiss 1966a, p. 115.

43 Ashenfelter and Johnson 1972.

44 Kahn 1979.

45 Ashenfelter and Johnson 1972, p. 505.

The ascendancy of the Chicago school was in many ways a counterrevolution in both theory and methodology. The competitive model, viewed with skepticism in the 1950s, now became the standard frame of reference in the 1970s. Not coincidentally, labour unions and government wage standards, once perceived as largely beneficial (or at least benign) in the 1950s, had, twenty years later, become a source of market inefficiency.⁴⁶

The Real World Strikes Back

It wasn't long before the realities of the real world came back to raise yet another profound challenge to the newly resuscitated orthodoxy. The alarming persistence of large sectors of extremely low paid workers despite substantial doses of government training programmes designed to increase their human capital raised serious suspicions.⁴⁷ Equally important, the continued existence of severe and unexplained differentials between black and white workers and between male and female workers also proved to be an intractable problem.⁴⁸ According to the neoclassical argument, competitive forces should have been working to eliminate these discriminatory differentials,⁴⁹ yet these glaring inequities continued to be reproduced.

As economists began to look more closely at these human capital studies, substantial criticisms were raised concerning the use of average years of schooling as the key variable to indicate individual investment in 'human capital'. Some economists argued that for many individuals, education was not primarily conceived as an investment good.⁵⁰ Others argued that in large-scale manufacturing, on-the-job training was becoming increasingly important. Consequently, years of schooling were often irrelevant as an indicator of skill level.⁵¹ It was also quite possible that the criterion of education was merely a 'screening device' to keep out undesirable personalities or to reduce hiring costs.⁵²

In a more recent critique of human capital theory, David Howell suggested that there was a 'severe empirical problem with the use of the schooling

46 Kaufman 1988b, p. 146.

47 See Doeringer and Piore 1971; Gordon 1972; and Friedman 1984.

48 See Marshall 1975; Cain 1976; and Darity 1989.

49 Becker 1957.

50 Chamberlain 1968, pp. 6–7.

51 Doeringer and Piore 1971.

52 Bowles and Gintis 1975; and Thurow 1975.

variable in several recent wage studies'.⁵³ According to Howell, these studies primarily relied on Census of Population data whose average skill levels were significantly biased by the failure to separate production workers from highly skilled technical personnel. He therefore developed his own criteria for measuring skill levels from the 1977 Dictionary of Occupational Titles and the 1971 BLS Occupational Employment Studies, and produced results that were in direct conflict with the above human capital studies. Testing his own skill variables against various structural factors like capital intensity, plant size, and materials costs per worker for 100 manufacturing industries, general education skills were found to be significant only at the .05 level. They also had the lowest standardised parameter estimates among all of these variables. On the other hand, industry structure variables, the share of female employment, unionisation, and quit rates were all significant at the .01 level.⁵⁴

Finally, economists like Mark Blaug claimed that the human capital research programme was increasingly resorting to 'ad hoc auxiliary assumptions to account for every perverse result, culminating in a certain tendency to mindlessly grind out the same calculation with a new set of data'.⁵⁵ Given our previous discussion of the idealized assumptions of perfect competition which provides one of the key foundations for neoclassical wage theory, this resort to ad hoc revisions would not have been difficult to predict.

The New Institutionalists: The Dual Economy and Dual Labour Markets

The posing of these new critiques and the persistence of race and sex discrimination and painfully large numbers of the 'working poor' reopened the door for yet another attempt to create a theory of wage differentials that could more adequately explain these disturbing inequities. In the early 1970s, this challenge was taken up by Peter Doeringer and Michael Piore, who were trying to build on the earlier work of institutionalists who had developed the concept of 'internal labour markets' (or ILMS).⁵⁶ Initially placing far less emphasis on the importance of unions, however, their revised explanation for the development of ILMS centred around two key issues: (1) the growing importance of job-specific skill training, and (2) the development of the modern 'dual economy'.

53 Howell 1982, p. 32.

54 Howell 1982, p. 14.

55 Blaug 1976, p. 849.

56 See Kerr 1955 and Dunlop 1957.

Arguing that job-specific skills and on-the-job training had become increasingly important within many large manufacturing firms, the authors suggested that the development of stable internal labour markets enabled these firms to minimise the rising costs of skill training and worker turnover. With clearly defined job ladders that were partially insulated from the competitive pressures of the 'external' labour market, experienced workers could accumulate the benefits of seniority rights. Thus, they would be more willing to stay on within the firm and they would also be willing to train younger workers coming up the ladder.⁵⁷ Given these cost-minimising effects of internal labour markets, large firms would tend to develop them with or without pressure from unions.

On the other side of the dual economy, firms whose product markets and employment levels were highly unstable, or whose unsophisticated technologies did not require large numbers of semiskilled workers, would have little interest in developing stable internal labour markets. These firms (along with many small firms that simply did not have the financial resources to develop ILMS) would tend to rely on 'secondary' labour markets that were far more vulnerable to competitive pressures.⁵⁸

Combining their argument concerning job-specific skills with a very sketchy version of Robert Averitt's⁵⁹ theory of the dual economy, Doeringer and Piore developed their theory of the dual labour market:

This theory argues that the labour market is divided into a primary and a secondary market. Jobs in the primary market possess several of the following characteristics: high wages, good working conditions, employment stability, chances of advancement, equity, and due process in the administration of work rules. Jobs in the secondary market, in contrast, tend to have low wages and fringe benefits, poor working conditions, high labour turnover, little chance of advancement, and often arbitrary and capricious supervision. There are distinctions between workers in the two sectors which parallel those between jobs: workers in the secondary sector, relative to those in the primary sector, exhibit greater turnover, higher rates of lateness and absenteeism, more insubordination, and engage more freely in petty theft and pilferage.⁶⁰

57 Doeringer and Piore 1971, chapter 2.

58 See Doeringer and Piore 1971, pp. 170–2, and 182.

59 Averitt 1968.

60 Doeringer and Piore 1971, p. 165.

Because of this structural division between primary and secondary sectors within the modern economy, the neoclassical model of wage competition was not generally applicable to large sectors of industry and labour. Wage competition between workers employed in different core firms was significantly weakened by ILMS, and upward mobility from secondary to primary labour markets was often substantially blocked by screening devices at the 'ports of entry'. This was particularly true for black secondary workers who were doubly disadvantaged by racial discrimination.⁶¹

Although many secondary workers might like to pursue the human capital route of acquiring additional skills in order to improve their earnings, both training and employment opportunities were limited to those who were permitted entry into the primary labour markets of core firms. Given these barriers to entry into the primary sector and the inherently unstable nature of the secondary sectors of the economy, the dual labour market had become a persistent phenomenon within the modern capitalist economy. Moreover, human capital policies stressing education and premarket skill training as the primary means to raise the wages of secondary workers were clearly missing the point.

Although Doeringer and Piore made a compelling case for the evidence of serious divisions within the labour market, their argument for how these divisions were both developed and maintained *despite the forces of competition* contained serious ambiguities and inconsistencies. In the initial chapters of their book, that do not deal explicitly with the effects of unions, they appear to be quite willing to recognize the ultimate determinacy of competitive market forces. Indeed, they state that ILMS are a 'logical development in a competitive market' where enterprise-specific skills, on-the-job training, and custom are prevalent.⁶² Thus, ILMS can persist in core sectors of the economy because they are the most efficient way to minimise turnover and training costs in industries that possess particular structural characteristics (i.e. large firm resources, high stability, and capital-intensive technology).

When these writers go on to discuss the role of unions, however, they are eventually forced to seriously undermine their original competitive argument explaining the origin and persistence of ILMS. Doeringer and Piore must ultimately grapple with the fact that unions have somehow managed to establish a number of important primary labour markets within peripheral industries like construction and longshoring that do not appear to possess *any* of the above structural characteristics. Thus, they are forced to concede that 'while,

61 Doeringer and Piore 1971, p. 183.

62 Doeringer and Piore 1971, p. 39.

to a certain extent, the development of internal labour markets may be understood as a free response of employers to the advantages which the internal market provides them, they have in many cases been forced by union pressure to provide greater job security than is otherwise to their advantage'.⁶³

Finally, in their concluding policy arguments, it appears that the anomalous development of stable primary labour markets in the periphery has led them to completely contradict their original argument concerning the distinctive structural foundations of primary labour markets. As a result, they curiously suggest that 'with determination and a good deal of imagination ... it is probably possible to stabilize most secondary jobs and build into them the kind of career ladders, skill levels, and wage rates which characterize primary employment'.⁶⁴

The inconsistency is hard to reconcile. On the one hand, ILMS are supposedly consistent with competitive theory because they are a cost-minimising approach to particular technical and product market conditions. On the other hand, ILMS can also be generated by 'imagination', custom, and/or unions that can somehow override competitive pressures and force the development of *inefficient* primary labour markets in the periphery.

In the end, Doeringer and Piore are forced back into the old indeterminate framework where neither institutional factors nor competitive market forces are given primary weight. Like the earlier wave of institutionalists, they therefore fail to construct a coherent alternative to the neoclassical argument. And once again, it is their implicit acceptance of the rigid constructs of 'perfect competition' and their subsequent inability to reconcile the presence of various institutional realities (i.e. unions) with that particular notion of competition that is a key part of the problem.⁶⁵

In later writings, Piore continues to wrestle with this ambiguity in his argument.⁶⁶ As with the earlier institutionalists, however, the more he investigates the rich diversity of internal labour markets within various capitalist countries, the more he moves away from the notion that competitive factors have an important determining influence on these patterns.⁶⁷

63 Doeringer and Piore 1971, p. 173.

64 Doeringer and Piore 1971, p. 181.

65 Another important barrier to the development of a viable alternative theory was rooted in their essential acceptance of marginal productivity theory. Although Doeringer and Piore qualified the orthodox argument that wages are *immediately* and *identically* determined by the individual worker's marginal product, they were not willing to break from the general argument that the value of the worker's product ultimately determines his/her share of income in the long-run (1971, pp. 71–8).

66 Piore 1973; and Berger and Piore 1980.

67 For an excellent critique of Piore's more recent attempts to develop a logically consistent

Given this ultimate inability to develop a viable alternative theory, most neoclassical economists did not view the dual labour market argument as a serious threat to orthodox theory. As Doeringer and Piore acknowledged early on, much of their discussion of job-specific skills and internal labour markets could be incorporated within neoclassical theory. In fact, this approach had already been actively pursued by a number of neoclassical economists who were attempting to explain the phenomena of ILMS as a competitive response to the development of labour as a 'quasi-fixed factor'.⁶⁸

As far as most orthodox economists were concerned, the key problem posed by dual labour market theory was the empirical issue of whether or not the mobility of labour was seriously blocked between primary and secondary markets. In a critical review of the dual and segmented labour market arguments, Glen Cain concluded:

In summary, it would be consistent with neoclassical theory for bureaucratic firms that have firm-specific training, high overhead costs of labour, and somewhat rigid wages to create a strata of high-paying stable jobs. These types of jobs could be labeled 'primary jobs,' but whether the labour market is dualistic depends, obviously, on how common these 'protected labour markets' are and whether there is sufficient gradation in the pattern to yield a continuum rather than a dichotomy.⁶⁹

As we shall see shortly, empirical studies conducted by neoclassical economists were also quite critical of both dual and segmented labour market arguments.

Unfortunately for Doeringer and Piore, neoclassical economists were not the only critics of these early formulations of the dual labour market. Radical and Marxist economists to the left of the new institutionalists were also quite sceptical. Influenced primarily by Harry Braverman's seminal discussion of the deskilling effects of modern mechanisation, many radicals appropriately contested the assumed correspondence between high capital intensity, modern

explanation for the various forms of labour market segmentation, see Constance Lever-Tracy 1984.

68 See Oi 1962; Becker 1964; and Williamson et al. 1975. By arguing that ILMS were cost effective, Doeringer and Piore laid the groundwork for their argument to be viewed as an extension of R.H. Coase's neoclassical theory of the firm (Coase 1937). It is also important to note that the authors reinforced human capital explanations of inter-industry wage differentials by consistently maintaining that high-wage primary workers were, in fact, substantially more skilled than low-wage secondary workers.

69 Cain 1976, p. 1240.

technology, and high levels of skill within the 'core'.⁷⁰ Other writers objected to Doeringer and Piore's essentially harmonious view of the labour process where serious antagonisms between capital and labour were largely ignored. The radical theory of labour market segmentation was primarily developed to address this latter gap within dual labour market theory.

Labour Market Segmentation and Monopoly Capital

Immediately following the publication of Doeringer and Piore's book, David Gordon, Richard Edwards, and Michael Reich began to develop a new theory of divided labour markets that deemphasised the importance of job-specific skills and raised the power struggle between labour and capital to the highest level of determination. Within this theory, the historical struggle for control over the capitalist labour process is considered to be the essential driving force for the development of three distinct and separate labour markets. In one of the most comprehensive versions of this argument, Edwards explains:

Labour markets are segmented because they express a historical segmentation of the labour process; specifically, a distinct system of control inside the firm underlies each of the three market segments. The secondary labour market is the market expression of workplaces organised according to simple control. The subordinate primary market contains those workplaces (workers and jobs) under the 'mixed' system of technical control and unions. And the independent primary market reflects bureaucratically controlled labour processes. Thus, the fundamental basis for division into three segments is to be found in the workplace, not in the labour market; so to define the three market segments we now have a single criterion – the type of control system – rather than simply a cluster of market behavior characteristics.⁷¹

Rather than arguing that internal labour markets were developed to facilitate skill training, the radicals maintain that 'job security and job ladders were intended to break up the sense of solidarity that united a firm's workers in collective opposition to their employers'.⁷² 'Employers actively and consciously

70 See Braverman 1974, Rubery 1978 and Hodson 1982.

71 Edwards 1979, p. 178.

72 Edwards 1979, p. 153.

fostered labour market segmentation in order to “divide and conquer” the labour force.’⁷³

Although the radicals’ distinctive emphasis on the struggle for control sometimes appears to reject any sort of structural basis for the development of persistent divisions within the labour market, the theory of labour market segmentation is also fundamentally tied to the notion of the dual economy.⁷⁴ Influenced more heavily by Marxist discussions of ‘monopoly capital’, however, the radicals tend to emphasise ‘market power’ and above-average rates of profit as the most important prerequisites for the development of high-wage, primary labour markets. Consequently, they consistently divide the economy into two clearly defined sectors: the monopolistic ‘core’ and the highly competitive ‘periphery’. Edwards explains:

Since the 1920s, conflict in the labour process has occurred within the larger context of monopoly capitalism, which has implied two specific changes for the core firm. First, core corporations are more profitable than other firms, and hence they can devote more resources to developing structures of workplace control ... Second, core corporations face smaller risks, indeed an almost negligible risk of failure, and hence they can more confidently develop long-term structures of control.⁷⁵

In an earlier work by Reich, Edwards, and Gordon, the influence of the theory of imperfect competition is also quite evident when they suggest that ‘the larger, more capital-intensive firms were generally sheltered by barriers to entry, enjoyed technological, market power, and financial economies of scale and generated higher rates of profit and growth than their smaller, labour-intensive competitive counterparts’.⁷⁶

Given their greater emphasis on both unions and market power, the radical theory of labour market segmentation is really quite close to the older institutionalist arguments of Dunlop and Kerr. Just as in Dunlop’s argument, if workers manage to organise unions within concentrated industries where firms possess market power, they will be able to push wage rates above competitive

⁷³ Reich et al. 1973, p. 361.

⁷⁴ In *Contested Terrain*, Edwards states quite clearly that ‘the dichotomizing of the economy into core and periphery has introduced a new structural division in the conditions of employment’ (1979, p. 163).

⁷⁵ Edwards 1979, p. 85.

⁷⁶ Reich et al. 1973, p. 363. For similar versions of this argument by other radical economists, see O’Connor 1973 and Bluestone et al. 1973.

levels. 'Technical control in the core firms brings unionization in its wake, and through unionization, the characteristics of primary-market employment'.⁷⁷

Within secondary firms, however, the possibilities for developing primary labour markets are much more bleak. 'Secondary employers generally do not have the scale, the volume of profits, or the stability to make the long-term commitments necessary to establish primary-market employment'.⁷⁸

Finally, like the dual labour market argument, the radicals also suggest that (with the exception of white males) mobility from secondary to primary labour markets is seriously restricted.

The barriers to the primary markets – the lack of enough subordinate primary jobs; the craft restrictions, the educational requirements, and racial and sexual discrimination in independent primary jobs – set the limits for the employment possibilities of the working poor. Subject to secondary-market conditions and excluded (except toward the end of the boom) from primary markets, the working poor survive the ups and downs of the cycle as an enduring feature of American society.⁷⁹

This argument provides us with an interesting and somewhat unique case in point within our survey of alternative theories that have attempted to explain the persistence of 'noncompetitive' wage differentials. In the introduction to this survey, we argued that all previous discussions of wage differentials have been severely constrained by the explicit or implicit acceptance of the neo-classical theory of perfect competition. For the marginalists, we saw that while the theory of perfect competition gave their analysis of wage determination a great deal of elegance and order, it also made it virtually impossible for them to explain the occurrence of differential profit and wage rates that were the result of real capitalist competition. Thus, they stuck to their abstract theory and tended to ignore these disturbing anomalies.

On the other hand, for the postwar institutionalists who were trying to understand these wage patterns, the implicit acceptance of perfect competition theory led them to conclude that the presence of substantial differential wage and profit rates was direct evidence that competition had been severely weakened within many of the industries they studied. Thus, they were unable to develop a systematic theoretical framework for their observations. The res-

77 Edwards 1979, p. 181.

78 Edwards 1979, p. 183.

79 Edwards 1979, p. 188.

ulting lack of determinacy in their own theory concerned institutionalists like Dunlop, who then tried unsuccessfully to develop a more general theory of the internal and external forces behind the determination of wage levels.⁸⁰

We now come to the radical economists, who advance yet another explanation for the contradictions that quickly arise between the real world they are observing and the theory of competition from which they implicitly began. Yet, while they also interpret the existence of differential profit and wage rates as evidence of 'market power' and the lack of competition, they are not at all disturbed by the degree of indeterminacy that this implies. On the contrary, one of the key purposes of radical analysis has been to claim that it is the subjective power struggle between capital and labour, and not the more objective forces of competition and accumulation, that is the major determining force within the capitalist economy.⁸¹

In order to resolve the contradiction between the inappropriate theory they had originally accepted and the real world they carefully studied, the radicals ended up rejecting the need for general laws altogether. The irony is that while they were clearly trying to revive the importance of the class struggle within the analysis of capitalist production, this book will eventually show that their rejection of abstract methodology and the laws of capitalist competition ultimately leads them to a very inverted view of the real determinations of workers' power. Finally, although the early labour market segmentationists were not initially concerned with constructing a determinate theory, many other writers sympathetic to the project of developing alternative wage theory soon began to raise serious criticisms of the ad hoc and essentially descriptive nature of segmentation arguments.

The Initial Response to Segmentation Theory

The response of neoclassical economists to the theories of dual and segmented labour markets was largely reminiscent of their earlier reactions to the institutionalists of the 1950s. Echoing the mixed remarks of Allan Cartter, Glen Cain stated the following concerning the theoretical contributions of the new institutionalists:

80 Dunlop 1957, p. 127.

81 Gordon et al. 1982, p. 21.

Unfortunately, the segmented labour market theories are sketchy, vague, and diverse if not internally conflicting. Description, narratives, and taxonomies crowd out model development. On the positive side the theories evolve from detailed data that are often richer in historical, institutional and qualitative aspects than is customary among the econometrically oriented orthodox theories.⁸²

Referring to radical tests of discontinuity and impeded mobility within the labour market, Cain also pointed out:

[B]oth tests of the dual hypothesis require some criteria for determining in advance what assigns a worker to a primary or secondary sector and what degree of bimodality or immobility would be considered sufficient to justify the dual label. Surprisingly almost no discussion of these criteria has been forthcoming from economists sympathetic to segmented labour market theories.⁸³

Making matters even worse, a number of empirical studies conducted by neo-classical economists seemed to provide little support for the segmentation argument. Investigating cross-sectional data on wages and earnings, Wachter and Freiman both discovered near normal distributions rather than the bimodal distributions predicted by dual and segmented labour market theories.⁸⁴ Testing for seriously restricted mobility for workers classified by race, previous wage, previous industry, and other circumstances, Freiman and Leigh both found evidence of substantial mobility across critical boundaries.⁸⁵

Finally, early radical studies that appeared to provide strong evidence of differential returns to education and work experience across segments⁸⁶ were criticised for 'truncation bias' – a potentially serious problem that arises when regressions are fitted to samples that are truncated on the values of the dependent variables.⁸⁷

82 Cain 1976, p. 1221. See also Wachter 1974.

83 Cain 1976, p. 1231. In a later article defending the continuing project of segmentation theory, Michael Reich conceded that these criticisms of the early empirical studies were generally accurate (1984, p. 65).

84 Wachter 1974 and Freiman 1976.

85 Freiman 1976 and Leigh 1976.

86 Osterman 1975; Bluestone et al. 1973; and Wachtel and Betsey 1972.

87 Cain 1976, p. 1246.

As noted earlier, criticism of the dual and segmented labour market theories did not only come from the bastions of orthodoxy. Many economists and sociologists hailing from radical and Marxian traditions also began to develop serious criticisms on the empirical, methodological, and theoretical levels. Thus, even literature surveys that were sympathetic to segmentation theory were forced to conclude that the results of empirical studies were largely inconclusive.

In one of the more positive surveys, Samuel Rosenberg introduces his paper by stating: 'While labour market segmentation theory is in better shape than many economists claim, it is also the case that several of its initial assertions have not been empirically verified, and a portion of the more favorable empirical results have rested on somewhat less than solid foundations'.⁸⁸ He goes on to point out that virtually all studies of mobility 'show upward mobility from the bottom of the occupational distribution'.⁸⁹ Perhaps of greater importance, he also notes that hypotheses concerning wage determination in the secondary sector 'are not completely supported by the available evidence and methodological questions limit the extent to which policy implications can be drawn from the existing studies'.⁹⁰

As a number of radical sociologists attempted to utilize the LMS framework, other anomalies began to appear. Once again, both black and female workers were showing up in significant proportions within the core.⁹¹ Other studies seemed to indicate that education was a significant explanatory factor for income levels within the secondary as well as the primary sectors.⁹² Some writers also raised serious doubts about the supposed stability and higher quality of jobs within the core.⁹³

Although the above studies clearly raised important questions concerning the actual degree of segmentation within the working class, more fundamental questions also began to arise concerning the relevance of the 'dual economy' as the key structural basis for these divisions within the labour market. In a critical survey of empirical work done by various sociologists, Randy Hodson concluded that 'the message is obvious; serious empirical inconsistencies have

88 Rosenberg 1979, p. 1.

89 Rosenberg 1979, p. 13.

90 For similar comments on the inconclusive results of early segmentation studies, see Reich 1984; Ryan 1981; and Gordon et al. 1982, p. 192.

91 Hodson 1978; Beck et al. 1978; Bridges 1980; Baron and Hymer 1968; Syzmanski 1975; and Lever-Tracy 1984.

92 Friedman 1984 and Kalleberg et al. 1981.

93 Lever-Tracy 1984.

rendered existing models of the dual economy unusable. And empirical inconsistencies aside, there has been a growing trend in the segmentation literature to question some of the propositions of the dual approach'.⁹⁴

Serious questions began to be raised about the overall alignment of 'core' and 'periphery' with primary and secondary labour markets. Furthermore, the issue of 'coreness' itself eventually came under fire as researchers discovered that the assumed alignment of key dimensions for coreness (i.e. concentration, market power, capital intensity, firm size, and profit rates) was not always present.⁹⁵ Even more disturbing, core dimensions like market concentration and large firm size did not always have the assumed directional effect on wage rates. 'Counterevidence is rapidly accumulating in the form of opposite signed coefficients for different dimensions of industrial structure in analyses of labour force outcomes'.⁹⁶

In addition to the problems outlined above, Hodson and Friedman also raised important questions about one of the key studies utilised by segmentationists to substantiate their claim that the dual economy actually exists.⁹⁷ Referring to Oster's factor analytic test of the dual economy,⁹⁸ Hodson argues that Oster used faulty hypothesis testing procedures as well as circular reasoning in developing a testable definition of the 'core'.⁹⁹

Other writers sympathetic to the segmentationist project also criticized the early arguments on theoretical grounds that were surprisingly similar to Cain's remarks. In one of the most comprehensive critiques of the early theories of dual and segmented labour markets, Jill Rubery notes:

This important new approach has so far progressed in an ad hoc fashion ... Each new contribution adopted parts of the previous theories, with no

94 Hodson 1982, p. 727.

95 Friedman and Friedman 1979; Wallace and Kalleberg 1981; Kalleberg et al. 1981; Hodson 1986; and Katz 1986.

96 Hodson 1982, p. 733. See also Bridges 1980; Kalleberg et al. 1981; and Hodson 1986.

97 Hodson 1982, 1986; Friedman 1984.

98 Oster 1979.

99 'Industrial characteristics are combined with labour force characteristics and with outcome variables and a summary measure of the dual economy is extracted. Such operationalizations are unusable for a scientific investigation of the relationships between these various aspects of economic structure and labour market segmentation because they combine causal and outcome variables in the measure of the major explanatory concept' (Hodson 1982, p. 733). For another important critique of Oster's empirical test, see Samuel and Judith Friedman 1979.

theory developing its arguments from first principles. The result is that the analysis as it now stands is more a rationalization for the present structure of the American labour market than an explanation of how this was arrived at from the range of development paths open to it.¹⁰⁰

Ironically, Rubery also seriously criticised the segmentationists for failing to understand both the historical role of unions and workers in the segmentation process and the true dimensions of workers' power within the industrial setting. Thus, her main criticism of both dual labour market and radical theories was that 'the development of the economic structure is viewed from only one perspective: through the motivations and actions of capitalists. Workers, in these theories, play little part in the formation of structured labour markets ... Unions play no active part in the development and organisation of the work process'.¹⁰¹ In a related vein, Ruth Milkman pointed out that 'the role of unions in the formation of labour-market boundaries between "women's work" and "men's work" is not seriously considered' within labour market segmentation theory.¹⁰²

Finally, two other issues have become increasingly disturbing for writers attempting to utilize the dual and segmented labour market approaches in the contemporary period. First, by the late 1970s, the 'eternal' core was beginning to show more and more evidence of peripheral behaviour. Industries like steel and auto were experiencing serious profitability crunches and were becoming more and more interested in lowering the wages and working conditions of their primary workforces. In addition to relocating to low-wage areas, core firms were successfully extracting serious concessions in wages and working conditions from their workforces. Even more distressing, a 'secondary' labour market was developing *within* the factory gates of these core firms as two-tiered wage packages were increasingly being introduced on a wide scale.¹⁰³

Second, empirical studies developing in Western Europe were beginning to display all of the above anomalies that were discovered in the United States. Overall patterns of division and segmentation within the European working class were quite diverse and could not easily be explained by the distinctions of core and periphery.¹⁰⁴ Huge numbers of immigrant workers were being inducted not into the periphery sectors, but into the core sectors of France

100 Rubery 1978, p. 18. See also Hodson 1982.

101 Rubery 1978, pp. 21–2.

102 Milkman 1980, p. 100.

103 Slaughter 1983.

104 Wilkinson 1981 and Lever-Tracy 1984.

and Italy, and many of these core sectors were showing increasing signs of deterioration. In Italy, the 'traditional' (or competitive) sectors were faring far better than the core.¹⁰⁵

Given this veritable barrage of criticisms and problems that were generated by the initial volleys of segmentation theory, even Michael Reich was eventually forced to concede that the primary weakness of the first generation of segmentation arguments may have been the lack of theoretical clarity:

In all fairness to these empirical researchers, it should be said that differences among segmentation theorists have made the job of testing more difficult ... Each theoretical approach developed different empirical criteria. Hence it has been uncertain whether industrial structure characteristics, the existence of an internal labour market, characteristics of individual occupations or the presence of unions provide necessary or sufficient conditions for the existence of segmented labour markets, and it has been unclear how to allocate individual workers or jobs to the hypothesized labour segments. Much of the ambiguity in the empirical results of some researchers must be attributed to such unsettled theoretical issues.¹⁰⁶

The Second Wave of Segmentation Arguments

In their later and most comprehensive work, *Segmented Work, Divided Workers*, Gordon, Edwards, and Reich attempt to address many of the theoretical and empirical weaknesses of their earlier arguments. In the first three chapters the authors introduce their work by arguing that they have recognised the validity of many of the above criticisms and have therefore attempted to develop a far more elaborate historical and dynamic analysis of segmentation centred around a new analytical construct called the 'social structure of accumulation'.

Responding to criticisms from the left concerning the lack of theoretical determinacy and clarity, Gordon et al. state that their 'intermediate level of analysis' is 'intended to complement both the traditional and abstract Marxian approach to capitalist development and the more recent concrete analyses of everyday life'.¹⁰⁷ Moreover, they now pay careful attention to the 'influence

¹⁰⁵ Lever-Tracy 1984.

¹⁰⁶ Reich 1984, p. 64.

¹⁰⁷ Gordon et al. 1982, p. 22.

of the dynamics of capital accumulation on the limits, objectives, and instruments of workers' struggles'.¹⁰⁸

Answering criticisms of Rubery and others, who pointed out that their earlier analysis suffered from a one-sided view of the class struggle, the authors now suggest:

Workers are not passive pawns in the hands of omnipotent corporate planners, nor are they subject to inexorable laws of capitalist development. The analysis we present in this book aims to redress the imbalance of these earlier treatments, viewing the dynamics of accumulation and the transformations from one stage of capitalism to the next as products of a two-sided class struggle.¹⁰⁹

Finally, contrary to the earlier 'reified analysis of the boundaries dividing segments', they promise:

Our new historical analysis aims at providing a much more dynamic account of the processes generating the segmentation of labour in the hopes of placing more emphasis on the structures that generate segmentation and the historical contingency of both these postwar structures and the resulting segmentation.¹¹⁰

When the authors eventually attempt to utilise their new argument to address many of the empirical problems in the earlier literature, it becomes clear that the key way around many of these 'dissonant anomalies' is to stress the historically contingent aspects of their analysis of segmentation within the 'exploration, consolidation and decay' of the postwar social structure of accumulation. Unfortunately, this quite detailed and historically specific analysis appears to have raised more problems than it solved.

Although the authors clearly did attempt to develop a more systematic and determinate theory of segmentation, their intermediate level of analysis has been severely criticised. In a critical review of *Divided Work, Segmented Labour*, Nolan and Edwards note:

108 Gordon et al. 1982, p. 40.

109 Gordon et al. 1982, p. 41.

110 Ibid.

Gordon et al. do not adequately establish their intermediate approach at a conceptual level. The result is that the approach collapses into the view that capitalist crises are precipitated by contradictions within the system of labour control ... Other possible contradictions associated with the productive process, notably the question of the tendency for living labour to be displaced by constant capital, are not incorporated into the argument. Thus, not only are contradictions outside the process of production given no systematic attention, but contradictions within it are reduced to the particular aspect of labour control.¹¹¹

The same reviewers also astutely remark that 'the "middle-range" becomes the total range because there is no criterion for selection of what to include and what to exclude'.¹¹²

In another critical review, Constance Lever-Tracy argues that Gordon et al. do not really offer a careful analysis of the laws of capitalist accumulation.

Capitalism is seen by those within a Marxist tradition as a system involving a continuing logic and an unfolding and developing set of tendencies, drives, and contradictions. There are significant changes and a considerable role for contingency and for deliberate modifications, yet these operate in the context of this logic and these tendencies. Gordon et alia claim to retain a basic capital accumulation process, but it is limited, as they describe it, to 'microeconomic activity of profit making and reinvestment ... carried on by individual capitalists (or firms).' The specific social context, which contains a socially 'representative,' customary or expected organisation of the labour process, is conceptualized as a series of qualitatively distinct and historically contingent social structures of accumulation.¹¹³

Despite their continued preoccupation with the class struggle as the ultimate determining factor within capitalist society, it is not at all clear that the authors have overcome their one-sided view of the labour process. In *Divided Work, Segmented Labour*, they still tend to view the segmentation process primarily as a conscious result of capitalist efforts to divide and conquer the working class.¹¹⁴ As a result, they never really come to grips with Rubery's insightful

¹¹¹ Nolan and Edwards 1984, p. 198.

¹¹² Nolan and Edwards 1984, p. 214.

¹¹³ Lever-Tracy 1984, p. 78.

¹¹⁴ Gordon et al. 1982, p. 138.

suggestion that internal labour markets and rigid job classification systems are often the result of *workers'* attempts to shield themselves from both the reserve army and the constant pressures of homogenisation that are generated by mechanisation.¹¹⁵ According to Nolan and Edwards:

[W]hile rightly pointing to class struggle as a key aspect of the trajectory of capitalist societies, Gordon et al. fail to comprehend the complexities and contradictions of this struggle. They have not transcended their difficulties in their earlier work, for they retain an over-simple view of employers' behavior, in which the many ways of gaining compliance are reduced to a few straightforward rules and in which the dangers of investing employers with impossible amounts of knowledge, cunning, and foresight are obvious. And they have a similarly undeveloped view of the character and consequences of workers' resistance.¹¹⁶

I contend that one of the primary reasons for the segmentationists' continuing inability to develop a more theoretically satisfying analysis of workers' power is that they continue to maintain that the division between monopolistic and competitive sectors of the economy remains the primary basis for the differentiation of wages and working conditions. Thus, while the machinations of the monopoly capitalists continue to be placed above the limits of competitive forces, workers' abilities to affect wages and working conditions in *all* sectors continue to be seriously restricted.

By continuing to maintain that 'segmentation occurred in large part as a result of growing qualitative differences between core and peripheral firms', the authors also continue to be unable to resolve the old anomaly of how unions have managed to develop primary labour markets within the periphery.¹¹⁷ In fact, it is quite possible that their new analysis has made this issue even more problematic.

In their introductory comments contrasting their approach to older institutionalist arguments, the segmentationists clearly argue that the possibilities for upgrading wages and working conditions within the periphery are severely limited.

¹¹⁵ Rubery 1978.

¹¹⁶ Nolan and Edwards 1984, p. 214.

¹¹⁷ Gordon et al. 1982, p. 145.

Many economists talk about the possibility of 'upgrading' the jobs of low-skilled secondary workers, increasing their wage levels, and improving their working conditions. Our alternative explanation of the skill structure of jobs indicates that such reforms could not take place without profound challenges to the present structure of the capitalist economy.¹¹⁸

Yet, like Doeringer and Piore, they are also forced to concede that unions in mining, clothing, transportation, longshoring, and construction have historically developed primary markets in the periphery.¹¹⁹ The important point, of course, is how they attempt to resolve these anomalies. Unfortunately, they ultimately deal with these uncomfortable events by simply downplaying their significance and by excluding them from their statistical studies. In developing a test for wage differentials between the core and periphery, the authors decide to do the following for the unionised sectors outside of manufacturing.

[A]ccording to the industrial criteria for firms, mining, construction, and transportation fall in the periphery. Yet workers in these industries have been able to form strong unions. For this reason, despite the peripheral structure of their industries, mineworkers, construction workers, and truck drivers have been able to increase their wages much more rapidly than workers in other periphery sectors. In order to clarify the patterns of divergence that derive primarily from firm and industrial characteristics, we have therefore included in the periphery only a selected set of nonmanufacturing sectors, *excluding mining, construction, and transportation*.¹²⁰

In a more recent article, Reich seems to go even one step further in order to incorporate these same anomalies. Indeed, he now curiously suggests that they are perfectly 'consistent' with their theory of segmentation 'which views unionization as a potential shifter of industries from periphery to core'.¹²¹

118 Gordon et al. 1982, p. 41.

119 Gordon et al. 1982, pp. 190 and 197.

120 Gordon et al. 1982, p. 200, emphasis added.

121 Reich 1984, p. 74. Thus, Reich's own critical remarks concerning the *early* segmentation arguments continue to be relevant: 'It has been uncertain whether industrial structure characteristics, the existence of an internal labour market, characteristics of individual occupations or the presence of unions provide the necessary or sufficient conditions for the existence of segmented labour markets' (Reich 1984, p. 64).

Finally, in addition to failing to resolve many of the old problems, the authors' more recent attempt to develop a historically specific analysis of segmentation has generated a whole host of new criticisms. Most important, many radical and Marxian writers have taken serious issue with their characterisation of the capitalist mode of production as being divided into distinct stages of 'homogenisation' and 'segmentation'.¹²² As Frank Wilkinson has remarked in his preface to *The Dynamics of Labour Market Segmentation*:

Labour markets have always been structured, and the higher the skill and status of the workers the more organised and protected their position: professional associations are the most effective craft unions and have always been with us. Moreover, those parts of the labour market where workers are continually thrown into competition have generally been those typified by low pay and the most degrading working conditions.¹²³

The Continuing Search for a Radical Alternative

Given all of the above problems with the second generation of arguments based on the dual economy, Randy Hodson's earlier remarks concerning the validity of dualist paradigms unfortunately remain quite relevant.

In conclusion, while the dual economy and dual labour market approach has provided an important critique of the assumptions of labour market homogeneity prevalent in neoclassical economics and in the status attainment field (within sociology), it does not appear capable of providing a well-specified alternative theory ... The key questions have become 'What are the alternatives to dualism?' and 'Where do we go from here?'¹²⁴

The growing disenchantment with dualism has had both positive and negative effects. On the positive side, an increasing number of sociologists and economists have been developing a healthy scepticism about the importance of factors like monopoly power and market concentration for the explanation of inter-

¹²² Lever-Tracy 1984; Geller 1979; Wilkinson 1981; and Nolan and Edwards 1984.

¹²³ Wilkinson 1981, p. x. In the above passage Wilkinson was actually reacting to the neoclassical vision of the labour market. Nevertheless, his remarks are ironically just as relevant to the argument developed by Gordon et al.

¹²⁴ Hodson 1982, p. 735.

industry wage differentials.¹²⁵ Some of these writers are also becoming more positive about the potential for worker organisation and resistance to effect patterns of wage determination even within so-called 'competitive' sectors of the economy. Thus, writers like Friedman and Hodson are beginning to develop an alternative approach to the analysis of workers' bargaining power by concentrating on more technical factors (or 'production relations') rather than on market factors.¹²⁶

Unfortunately, there is also the negative side. While many writers have become disenchanted with the notion of the dual economy (or monopoly capital) as a foundation for analysing wage determination and segmentation, very few have begun to question this framework as an adequate conception of capitalist competition within the modern economy. With few exceptions, the theories of imperfect competition and monopoly capital appear to be alive and well in the vast majority of attempts to develop alternative theories.¹²⁷ Thus, rather than pushing radical economists and sociologists to consider alternative conceptions of capitalist competition, the rejection of the primacy of the dual economy has led instead to the proliferation of numerous case studies that place primary emphasis on contingent historical and institutional factors. Without an alternative analysis of the underlying dynamics of capitalist competition and accumulation that provide the regulating context for these more richly determined factors, however, these important studies will provide little hope for developing a systematic alternative to neoclassical theory. Indeed, Hodson's rejection of the importance of market factors (via dualist theory) has led him to conclude that 'sociological and organisational analysis rather than economic analysis should play the leading role' in the development of alternative theory.¹²⁸

Finally, although some European writers have argued that the importance of competitive factors must not be ignored,¹²⁹ it is difficult to see how these writers will be able to develop an analysis of these competitive factors without fundamentally breaking from the neoclassical framework of perfect and imperfect competition. Although Rubery has correctly suggested that 'it is the limit-

125 See Wilkinson 1981; Friedman 1984; and Hodson 1986.

126 My own discussion of effective union strategies within various competitive industries will be presented in chapters 6, 7 and 8 of this volume. See also Botwinick 1998.

127 For some exceptions to this overall direction, see Friedman 1984; Lever-Tracy 1984; Williams 1987, 1991; Darity 1989; and Mason 1992.

128 Hodson 1986, p. 21. For an extensive Marxist critique of SLM theory along similar lines as the current author, see Fine 1998.

129 Ryan 1981 and Rubery 1978.

ations on capitalists, rather than their ability to control that becomes the interesting question,'¹³⁰ a systematic analysis of these limits is virtually impossible within the frameworks of 'monopoly capital' and imperfect competition that continue to be the dominant frameworks for all of these writers. Thus, while writers like Rubery have done an excellent job of outlining the limits to capitalist actions due to worker resistance and organisation, the limits imposed by the forces of ongoing capitalist competition remain largely undefined.¹³¹

Perhaps the most ironic thing about virtually all of these radical and/or Marxist attempts to develop a more coherent alternative to neoclassical theory is that they all appear to have overlooked the very distinctive analysis of wage differentiation that is developed within Marx's three volumes of *Capital*. Although most writers on the left have certainly incorporated a number of Marx's insights concerning the labour process, technical change, and the reserve army of labour, they have unfortunately tended to disregard his analysis of capitalist competition and wage differentials. This is primarily because they have tended to accept the view of the monopoly capital tradition which argues that Marx's analysis of competition is very similar to the neoclassical theory of perfect competition (see chapter 5). And, just as perfect competition has been forced to give way to imperfect competition, Marx's analysis of the competitive stage of capitalism must also give way to the theory of monopoly capital.

Following a similar line of reasoning, Marx's discussions of competitive wage determination have also tended to be ignored. Like neoclassical theory, most writers suggest that Marx's analysis of competitive wage determination posited

130 Rubery 1978, p. 23.

131 In a more recent paper entitled 'Segmentation Theory Thirty Years On', Rubery concluded the following: 'Segmentation theory offered only a very partial institutional analysis of labour markets. It provided a very static picture of organisations' employment requirements, without consideration of the dynamics of inter-capitalist competition. It also offered a rather simplistic analysis of the interactions between demand – and supply-side segmentation with the latter only explaining who filled the bad jobs, not how bad jobs were constructed. Finally it was entirely American centric, such that when interests shifted to the variations in institutional arrangements between societies, segmentation theory with its only one model of internal labour markets appeared to have little to offer, particularly when the sustainability of the US internal labour market system was called into question'. However, given the new neoliberal framework, which largely ignores the critical role of firms in shaping employment systems, Rubery does add the following positive comment: 'Despite these deficiencies segmentation theory has the important attribute of placing employing organisations at the centre of labour market developments'. See Rubery 2006.

a long-run equilibrium tendency toward uniform wage rates for workers of similar skill and ability. Thus, like neoclassical theory, it is assumed that Marx's arguments must once again be dismissed in the face of repeated evidence of persistent patterns of wage differentiation. When these impressions are coupled to the view that Marx firmly predicted that the working class would become increasingly 'homogeneous', Marx's original arguments certainly do *appear* to offer very little to the modern discussion of segmentation.

The following chapters of this book will attempt to demonstrate that Marx's dynamic analysis of capitalist competition and accumulation actually provides us with a far more rich foundation for the development of a robust theory of wage differentials than most previous writers have tended to assume. But before going on to that project, we must discuss one final mainstream effort to reconcile the phenomena of persistent wage differentials with orthodox theory, that being the literal explosion of 'efficiency wage' theories that has occurred over the past ten years. Efficiency wage theory is a fitting place to end our survey for several reasons. Not only does it openly acknowledge some of the most serious failures of traditional competitive theory, but it momentarily reaches outside of the neoclassical paradigm to some of the older insights of the institutionalists and even to those of Marx. Yet, while these theories do concede important ground, I once again maintain that a far more daring departure from the neoclassical framework is required.

Efficiency Wage Theory: The Latest Attempt to Square the Circle

Although neoclassical economists have developed several legitimate critiques of institutional and radical explanations for persistent inter- and intra-industry wage differentials, a growing number of prominent mainstream economists have been increasingly willing to admit that traditional competitive theory simply cannot provide an adequate explanation for these unruly phenomena.¹³² As Richard Freeman has pointed out, 'While all the modern analysts, like the older generation, have tried to build competitive stories to explain industry and plant differentials, the broad conclusion they have reached also mimics that of the older generation – namely that competitive theory cannot explain the observed phenomenon and that labour market analysis must change accordingly if it is to deal with the real world'.¹³³ Even more curi-

132 Katz 1986; Dickens and Katz 1987; Krueger and Summers 1987; and Solow 1990.

133 Freeman 1988, p. 209.

ous, Freeman also notes that current empirical work on the inter-industry wage structure seems to confirm many of the previous institutionalist insights concerning the importance of industry structure and other 'noncompetitive' factors in the determination of wage rates.¹³⁴

Two of these empirical studies that have been repeatedly cited in recent discussions of the wage structure were conducted by William Dickens and Lawrence Katz and by Alan Krueger and Lawrence Summers.¹³⁵ Using extensive data samples, sophisticated techniques to adjust for multicollinearity, and numerous controls for individual differences in worker quality, these researchers arrive at similar conclusions. First, traditional competitive explanations that rely primarily on unobserved differences in labour quality, compensating differentials, and short-run disequilibrium in the labour market are clearly not adequate to explain these well-known patterns of wage differentials. Second, three key industry factors repeatedly have a positive and statistically significant effect on wage rates in a clear majority of their regressions. Repeating the findings of postwar institutionalists, these factors are capital intensity, plant size, and firm profitability. Whereas Krueger and Summers remain sceptical concerning the effects of unionisation, Dickens and Katz also present evidence suggesting that the level of unionisation has a significant positive effect on wage rates for both union and nonunion workers.¹³⁶

Diverging from previous institutionalist findings, however, both of these studies show that the statistical significance of market concentration tends to vary substantially depending on the econometric specification. In particular, the inclusion of individual worker quality variables and/or various structural variables such as capital intensity and plant size greatly weakens the significance of market concentration. As in Hodson's study,¹³⁷ Dickens and Katz also report that 'the concentration ratio variable had an inconsistent relation to the wage with both positive and negative coefficient values following no easily discernible pattern'.¹³⁸ They therefore suggest that variables measuring industry profitability may be more accurate indicators of monopoly power.

Last, Krueger and Summers also provide preliminary evidence which suggests that the inter-industry wage structure is not only remarkably stable over time, but across different capitalist countries as well:

134 For similar conclusions, see Katz 1986; Dickens and Katz 1987; and Howell 1989.

135 Dickens and Katz 1987; Krueger and Summer 1987.

136 For a useful survey of numerous other studies that support all of these results, see Katz 1986.

137 Hodson 1986.

138 Dickens and Katz 1987, p. 78.

The pattern of inter-industry wage differentials appears to be one of the most pervasive regularities generated by capitalist economies ... The wage structure is amazingly parallel in looking at data for different countries or different eras, and it appears very similar for workers of different ages, sex, degrees of skill, and in different occupations.¹³⁹

Given these and many other new and improved empirical challenges to orthodox wage theory, mainstream journals have been fertile ground for the development of new theories that are again attempting to rescue orthodox economics from the horrors of the real-world wage structure. Among these alternative theories, efficiency wage (EW) arguments appear to be gaining the most attention.¹⁴⁰

The central premise underlying all of the different variations of efficiency wage theory is that the payment of wage rates that are above the market clearing level can often be a profit maximising strategy because it allows capitalist firms to minimise overall unit labour costs. Depending on the particular brand of EW theory, higher wage rates can presumably lower unit labour costs through increased effort and reduced 'shirking' by employees;¹⁴¹ reduced turnover costs;¹⁴² the attraction and retention of higher quality workers;¹⁴³ and/or improved worker morale.¹⁴⁴

At the macro level, shirking models that stress the difficulties of monitoring workers' on-the-job effort have been utilised to explain the persistence of involuntary unemployment.¹⁴⁵ Briefly, if firms pay more than the 'going wage', workers presumably will work harder because the cost of being fired for shirking is now increased.¹⁴⁶ When all firms do this, increased wage levels will result in unemployment. Even if all firms pay the same higher wage rates, workers

139 Krueger and Summers 1987, p. 17.

140 For useful surveys of the efficiency wage literature, see Akerlof and Yellen 1986; Katz 1986; and Dickens and Katz 1987. Insider/outsider theories and closely related union threat models represent two other important yet far less popular attempts to explain the inter-industry wage structure. See Lindbeck and Snower 1988; and Dickens 1986. Because these latter theories share important similarities with my own argument, we will come back to them in chapter 6.

141 Shapiro and Stiglitz 1984; Bowles 1985; Bulow and Summers 1986.

142 Salop 1979 and Stiglitz 1985.

143 Weiss 1980.

144 Akerlof 1982 and Solow 1990.

145 Shapiro and Stiglitz 1984; Bowles 1985; Bulow and Summers 1986.

146 The original formulation of the shirking model is found in Alchian and Demsetz 1972.

now have an even stronger incentive not to shirk because the cost of being fired may now entail prolonged unemployment. In addition, employers will not attempt to reduce the wage to the market clearing level, because lower wages will result in lower work effort and higher unit labour costs. Reminiscent of Marx's arguments concerning the 'reserve army of labour', Shapiro and Stiglitz therefore boldly conclude that persistent unemployment may actually be required under capitalism as a 'worker discipline device'.¹⁴⁷

The extension of efficiency wage arguments to explain the persistence of inter-industry wage differentials is fairly straightforward.¹⁴⁸ As Dickens and Katz explain:

A basic implication of efficiency wage models is that if the conditions necessitating efficiency wage payments differ across industries, then the optimal wage will differ among industries. This means that workers with identical productive characteristics are paid differently depending on the industry affiliation. These wage differences for similar workers may reflect industry characteristics that do not directly affect the utility of workers and thus would not require compensating differentials in a standard competitive labour market.¹⁴⁹

In a preliminary and somewhat mixed evaluation of efficiency wage arguments, Lawrence Katz suggests that various combinations of EW arguments can theoretically provide plausible explanations for many of the long-standing empirical puzzles within the inter-industry wage structure.¹⁵⁰ For example, by invoking many of Doeringer and Piore's assumptions concerning core and peripheral industries, shirking models can be utilized to account for the development of dual labour markets. In order to do this, Bulow and Summers have simply assumed that secondary workers can be paid competitive wage rates because 'secondary sector jobs are so menial that monitoring is costless'.¹⁵¹ On the other hand, higher wages are required in core sectors where the 'responsible character of primary-sector jobs' presumably makes it far more difficult to

147 Shapiro and Stiglitz 1984. In the following chapter of this book we will show that Marx's causal arguments for a constant reserve army of labour are quite different from EW theory.

148 See Shapiro and Stiglitz 1984; Bulow and Summers 1986; and Krueger and Summers 1987.

149 Dickens and Katz 1987, p. 49.

150 It is important to note that Katz (1987) also argues that union threat models can arrive at many of the same results.

151 Bulow and Summers 1986.

detect shirking.¹⁵² Similarly, Oi's slightly different shirking model argues that large manufacturing establishments may pay higher wage rates because monitoring workers may typically be more difficult in plants that contain large workforces.¹⁵³ Heavy investment in highly integrated production systems may also make the cost of poor worker performance extremely high. Finally, other EW arguments that borrow heavily from Doeringer and Piore suggest that core firms may tend to pay efficiency wages in order to minimise potentially high turnover and training costs.

From a slightly different vantage point, sociological versions of EW theory that stress the importance of 'fairness' within the wage setting process can then be used to explain the well-known positive relation between wage rates and firm profitability. Here it is assumed that wage rates that are not a 'fair' reflection of a firm's ability to pay will result in poor worker morale and hence, lower productivity.¹⁵⁴ Thus, even in the absence of unions, it is suggested that 'rent sharing' will tend to occur within firms that earn above-average profits.¹⁵⁵

Perhaps most important, proponents of EW models also claim that their arguments finally allow orthodox economists to arrive at a reasonable explanation for precisely how high-wage firms manage to remain viable in the competitive marketplace. In their own version of EW theory, Krueger and Summers conclude that 'industry wage differentials reflect in large part rent sharing between firms and workers, and endure because the payment of high wages is not very costly for firms for efficiency wage reasons'.¹⁵⁶

Although EW arguments may appear to provide plausible explanations for many of the above phenomena, it is not difficult to see that these new arguments share many of the same weaknesses of the previous institutional and radical arguments they are supposed to supplant. While EW theorists do not rely solely on market concentration ratios to measure monopoly power, they do continue to assume that substantial differentials in inter- and intra-industry profit rates must be interpreted as evidence of the restriction of competition. As a result, they are once again forced to rely on indeterminate notions of rent-sharing and monopoly power as primary explanations for the persistence of high wage and profit rates within core sectors of the economy.

152 Bulow and Summers 1986, p. 382.

153 Oi 1983.

154 Akerlof 1982.

155 The above fairness argument is extremely hard to reconcile with the past 30 years as CEO salaries have skyrocketed while the real wages of most workers have stagnated despite continual increases in productivity.

156 Krueger and Summers 1987, p. 18.

Echoing other critiques of dual and segmented labour market theory, there has also been a strong ad hoc quality to the development of EW theory as new variations are continually generated and various combinations of particular versions of the theory are conveniently selected to account for each real-world anomaly that appears. The ad hoc nature of EW theory is greatly reinforced by the fact that direct testing of these arguments is extremely difficult. As Raff and Summers candidly admit, 'The very impediments to evaluating workers' ability, motivation, and stability that might lead employers to pay efficiency wages make conventional testing of efficiency wage theories difficult'.¹⁵⁷

Yet, despite this considerable flexibility, EW theories once again fail to address the previously mentioned anomalies of high wage rates and stable internal labour markets within a number of highly competitive industries where profits are not above-average, and structural factors such as large plant size and high capital intensity are clearly not present.

Finally, and perhaps most serious, the EW analysis of the capitalist labour process in general and of the mechanisms for soliciting work effort within manufacturing in particular simply does not ring true. As we have already noted in the case of Doeringer and Piore,¹⁵⁸ the assumed correspondence of high capital intensity with high levels of on-the-job training (and hence, high turnover costs) has been seriously questioned by Braverman's classic study of modern mechanisation and deskilling.¹⁵⁹ The suggestion that the detection of shirking is typically more difficult in capital-intensive plants as a result of the 'responsible nature' of these jobs strains the credibility of this theory even further.¹⁶⁰

As McKersie and other institutionalists pointed out long ago, modern mechanised industries generally have little need for wage incentive systems to induce work effort because they primarily rely on conveyor lines and other forms of machine pacing to control work speed. On the other hand, when various wage incentive systems have been introduced in less mechanised settings, they have generally resulted in only short-run increases in work effort.¹⁶¹ Moreover, in one of the first direct empirical tests of the shirking and turnover versions of EW theory, Leonard finds little evidence to support either the-

157 Raff and Summers 1987, s. 57.

158 Doeringer and Piore 1971.

159 For more recent empirical work that strongly contests the assumed complementarity of high capital intensity and high levels of skill, see Howell 1982, 1989.

160 Other writers who have expressed similar scepticism regarding this claim include Solow 1990; and Darity 1991.

161 See McKersie 1967; and Mathewson 1931.

ory.¹⁶² In a scathing indictment of the real-world relevancy of EW theory, John Dunlop noted the following: 'The notion that wages may be used as a substitute for the costs of supervision is an idea that may have some validity through the substitution of piecework for day work, as in cotton textiles or in the early stages of economic development, but as a general basis for wage setting the idea is scarcely worthy of consideration'.¹⁶³

Given this departure from the realities of the capitalist labour process, it is not at all surprising that when Daniel Raff and Lawrence Summers attempt to utilise EW arguments to explain Henry Ford's famous five dollar day, they encounter considerable difficulty reconciling their theory with the realities of automobile production in the age of the assembly line. Although they persist in maintaining that Ford's wage policy was primarily an 'efficiency wage' because it reduced turnover and significantly increased work effort, they are also forced to recognise that scientific management involving both high levels of mechanisation and systematic deskilling had already greatly reduced the problem of monitoring individual worker effort *before wages were increased*. They also concede that another reasonable explanation for the five dollar day is that the 'company may have been tacitly bargaining with workers' in order to 'buy peace' and avoid the possibility of systematic output restriction and other forms of collective action by workers.¹⁶⁴ In fact, although Raff and Summers curiously say very little about union organising activity in Detroit during this period, there is substantial evidence that the union threat was very real – particularly at Ford, which had been specifically targeted by the IWW and two other unions. There is also abundant evidence that personnel policies and physical working conditions at Ford were possibly the most gruesome and draconian in all of heavy industry. This further suggests that the five dollar day was largely an attempt to co-opt workers into accepting these horrendous conditions with the minimum of organised resistance.¹⁶⁵

162 Testing for the predicted trade-off between high wage rates and the intensity of supervision, Leonard concludes that there 'is little evidence that the considerable differences in occupational wages paid across firms can be accounted for by the shirking model'. Although there is some evidence that higher wages are associated with lower turnover rates, Leonard finds that the reductions in turnover are 'not sufficient to establish the profitability of wage bonuses' (1987, s. 151).

163 Dunlop 1983, p. 73.

164 Raff and Summers 1987, ss. 83–4.

165 For an excellent discussion of the conditions at Ford and the imminent union threat, see S. Meyer 1981. See also Lichtenstein and Meyer 1989, Foner 1973, Sward 1948, and Braverman 1974.

Given these and many other problems with EW arguments, it is appropriate to ask why these theories have so quickly become the main contenders within mainstream attempts to account for both involuntary unemployment and noncompetitive wage differentials.¹⁶⁶ If the previous historical development of neoclassical theory is any indicator, it is certainly reasonable to suggest that one of the main attractions of EW theory is that it allows orthodox economists to superficially address these longstanding anomalies without fundamentally weakening the ideological underpinnings of the neoclassical model. Indeed, as John Dunlop has lamented in his review of recent developments within modern labour economics, 'microeconomics has been expanding into labour markets and wage structure determination, propelled not by the discipline and direction of practical problems but rather by a deep conservative, market-oriented bias among many participants'.¹⁶⁷

Although EW theories do take a few significant steps toward the real world of capitalist production by finally recognising both the necessity of involuntary unemployment and the potential conflict of interests over work effort, the assumed *cause* for both of these problems is inherently neoclassical. By relying heavily on Alchian and Demsetz's theory of the capitalist firm, EW theories suggest that the primary conflict within the labour process does not stem from the exploitation of labour, but rather from the innate tendency for individuals to shirk (and otherwise misbehave) when their activities cannot be accurately 'metred'. The conflict therefore arises not from any fundamental contradiction between the interests of capital and labour as *economic classes*, but from the supposedly eternal problem of self-serving 'human nature' and conflicting individual preference structures. Moreover, this conflict over work effort is essentially benign for it is easily muted by simply paying workers higher wages.

166 For a good summary of more mainstream criticisms of EW theory, see Katz 1986. Useful critiques of EW theory as an explanation for both involuntary unemployment and the persistence of discrimination can be found in Darity 1991 and Williams 1991. For a critique of EW theory's failure to recognise the importance of concerted action by both organised and unorganised workers, see Ulman 1990. For an excellent Marxist critique, see Fine 1998.

167 Dunlop 1988, p. 76. Contrasting the training of modern labour economists with that of the postwar institutionalists, Dunlop also complains that 'at no time in the research or training of younger scholars do they come into contact with labour market institutions, and they have little knowledge of the vast literature prior to the past decade or two' (Dunlop 1988, p. 78). Thus, from Dunlop's perspective, the increasing use of sophisticated econometric studies has done little to close the long-standing gap between orthodox wage theory and the real dynamics of the labour market.

Thus, contrary to Marx's claims, the conflict of interest between capitalists and workers is not irreconcilable, and collective worker organisation is not inherently necessary to protect the interests of labour. Indeed, EW theory provides a new opportunity to reconstruct the old conservative claim that unions actually have very little to do with the presence of high wages even within heavily unionized sectors of the economy.¹⁶⁸

Ideological consideration aside, we have been arguing throughout this survey that the development of a viable theory of competitive wage determination that can effectively address the realities of the inter-industry wage structure requires a far more drastic break from the neoclassical framework. As we shall soon see, a similar and equally strong case can be made for the development of a systematic analysis of the capitalist labour process. As Raff and Summers came close to discovering through their study of Henry Ford's auto plant, a far better place to begin understanding the real dynamics of capitalist control is with Frederick Winslow Taylor, the heralded 'father of scientific management'. And, as is so often the case, once we acquaint ourselves with the practical business literature, which requires a far more realistic grounding in the realities of capitalist production, we then have a direct route back to Marx.

In his famous 1911 address to the American Society of Mechanical Engineers, Taylor made it quite clear that the primary management problem was not individual shirking, but the widespread occurrence of '*systematic soldiering*'. This soldiering was the collectively organised refusal of skilled workers to work to their true capacities. Workers did this not primarily because they were lazy, but because they accurately viewed the wage system as grossly unjust.¹⁶⁹ Moreover, the main information problem for management was not the inability to measure worker output, but the overwhelming fact that highly skilled workers knew far more about their jobs than did management. Thus, management had a great deal of difficulty estimating realistic output levels that they could actually impose on their workforce. As Marx had already chronicled in his study of manufacturing and modern industry in Great Britain, Taylor

168 Krueger and Summers 1987.

169 Taylor 1911. Mathewson's classic study of the restriction of output by unorganised workers clearly supports Taylor's contention. In a poem entitled 'Harmony?', one worker said it all: 'I am working with the feeling – that the company is stealing – fifty pennies from my pocket every day – but for every single penny – they will lose ten times as many by the speed that I'm producing, I dare say' (cited in Mathewson 1931, p. 127). For a useful discussion of systematic soldiering and the implementation of Taylorism in the early auto industry, see Meyer 1981.

concludes that the primary solution to management control is to break the skilled workers' hold over the secrets of the labour process and systematically deskill the majority of the workforce. Once deskilling had become widespread and the resistance of skilled workers was finally broken, Taylor naively argued that industrial peace could be permanently established as long as management was willing to offer minimal wage increases whenever labour intensity was significantly increased. Or, in his own words, management must be willing to offer 'a fair day's pay for a day's work'.

For Marx, however, the notion of a 'fair' wage under capitalism was clearly impossible given that profits primarily came from the exploitation of labour. Thus, Marx argued that the next logical step in capital's efforts to secure the 'real subordination of labour' was the development of ever higher levels of mechanisation.¹⁷⁰ As we will discuss in chapter 3, Marx further argued that the same micro dynamics that lead to the mechanisation of the labour process also tend to generate a permanent reserve army of unemployed workers, which provides capital with an additional, external lever over the employed workforce. Within this far more realistic world of deskilling, machine pacing, and constant unemployment, Marx accurately noted that capital would have little reason to *raise* wage rates in order to motivate workers. On the contrary, at the same time that labour intensity was brutally increased, wages would tend to fall to minimum subsistence levels unless workers found ways to collectively resist these powerful downward pressures.¹⁷¹

Fortunately for workers, the development of capitalist control is a contradictory dynamic. Although the resistance of skilled workers is severely weakened by the process of mechanisation and deskilling, this same process can often enhance the potential for resistance among unskilled workers through the creation of large collectivised workplaces. And, as Taylor was obviously unable to anticipate, it is this organised resistance of unskilled workers to the inhumanity and brutal exploitation of the factory system that ultimately becomes the relentless problem of modern management – *regardless of whether wages are high or low*.

Of course, once we recognise the importance of collective worker resistance, we come back full circle to the problem that older institutionalists like

170 For an excellent discussion of the connections between Taylorism and Marx's analysis of the capitalist labour process, see Braverman 1974.

171 As Kaufman points out, many of the postwar institutionalists clearly understood that the reality of chronic unemployment meant that firms generally had the power to pay unorganised workers 'significantly less than the average market rate' (Kaufman 1988b, p. 154).

Dunlop repeatedly grappled with. Is there a way to systematically integrate the dynamics of both worker resistance and capitalist competition into a theory of competitive wage determination? I believe the answer is obviously yes, but it will require us to take a much more careful look at Marx.¹⁷²

One of the keys to this task will be to show that Marx's analysis of competitive wage determination can only be properly understood *after* we have understood both Marx's analysis of the laws of accumulation and his very distinctive analysis of capitalist competition. Our discussion will therefore begin with two chapters (3 and 4) that will primarily develop Marx's analysis of the laws of accumulation as they relate to wage determination and the dynamics of supply and demand within the aggregate labour market. Chapter 5 will then move to Marx's analysis of capitalist competition between and within industries. Finally, chapters 6 and 7 will develop our discussion of wage differentials within the context of accumulation and competition.

By carefully descending to lower levels of abstraction, we hope to develop a theory of competitive wage determination that is highly systematic but not rigidly deterministic. Within the context of accumulation and competition, it will be argued that worker resistance and organisation continue to have a profound effect on the wage determination process. In fact, we will argue that effective unionisation could have done (and still can do) a great deal to improve wages and working conditions within many of the 'competitive' sectors of the

172 Although Bowles (1985) argues that he has developed an explicitly Marxist version of efficiency wage theory, his analysis actually shares a great deal with the above neoclassical arguments. Once again, the conflict between capital and labour is viewed as a conflict of individual utility preferences, rather than as a class conflict generated by systematic exploitation. The assumptions of perfect competition are also largely retained and the issue of collective worker resistance is ignored. Finally, by giving very little attention to deskilling and mechanisation as critical control mechanisms, Bowles is forced to focus on efficiency wages and the 'costs of being fired'. For Marx, however, the key dynamic of capitalist control within modern industry is not rooted in this 'formal' subordination of labour that essentially holds the threat of unemployment over workers' heads. Rather, the more critical dynamic involves the 'real' subordination of labour that takes place through the systematic alteration of the labour process itself. From this author's perspective, the real world relevance of some aspects of EW theory are primarily limited to areas of the economy where white collar professionals have not yet been deskilled and where they work in relative isolation. However, as a general explanation for both wage differentials and labour process dynamics in most manufacturing sectors and in the majority of unskilled service sector jobs it is seriously misplaced. For an excellent analysis of how the dynamics of deskilling and 'management by stress' are alive and well in the auto industry, healthcare and even the university, see Parker and Slaughter 1994.

economy that both mainstream and radical economists have all too frequently written off. Nevertheless, we will continue to locate the primary determinations of this ongoing class struggle within the limits of capitalist competition and accumulation.

Capitalist Accumulation and the Aggregate Labour Market

Although this book is primarily concerned with wage differentials, a complete analysis of the determinations of differential wage rates cannot entirely avoid a discussion of the general wage level. If we are ultimately attempting to develop an analysis of the underlying limits to wage differentials, we must first develop a more general analysis of the limits to movements in the *wage level*. Thus, after a brief review of the neoclassical discussion of the aggregate labour market, this chapter follows Marx's methodology by initially abstracting from both the differentiation of capital and the differentiation of labour. As in volume 1 of *Capital*, this procedure then allows concentration on the more general question of how the dynamics of capitalist accumulation will normally tend to limit and regulate movements in the aggregate wage level.

By carefully developing Marx's analysis of the dynamics of the aggregate labour market, we will show that Marx's own argument must be clearly differentiated from both neoclassical economics and various wage-squeeze theories of capitalist crisis. Contrary to neoclassical theory, movements in the wage level are not identically determined by movements in the productivity of labour (marginal or otherwise). We also suggest that workers' collective struggles to improve their standard of living are an absolutely critical factor in the secular rise of real wage rates.

In addition to stressing the importance of class struggle, however, we also show that Marx's analysis of the aggregate labour market clearly suggests that movements in the wage level will tend to be limited by both movements in the productivity of labour and by movements in the reserve army of labour. Thus, contrary to many Marxist writers who argue that serious capitalist crises are often precipitated by rising wage rates, we maintain that Marx provides a number of compelling arguments which suggest that movements in the wage level will normally tend to remain within the confines of capitalist profitability.¹

1 For examples of various wage-squeeze theories of capitalist crisis, see Dobb 1937; Boddy and Crotty 1975; Glyn and Sutcliffe 1972; Gordon 1980; Bowles, Gordon and Weisskopf 1983; and Bluestone and Harrison 1990a. See also Panitch and Gindin 2012.

Marx versus Neoclassical Economics

It will be useful to first briefly review the key elements of the neoclassical discussion of wage determination within the aggregate labour market. This will allow us to derive the distinctive elements of Marx's argument in their sharpest contrast.²

Within neoclassical theory, the determination of the general wage level is primarily discussed within a static general equilibrium framework. This framework abstracts from the essential dynamics of capitalist accumulation in three key ways. First, the discussion begins by assuming that there is a given endowment of capital and labour. Second, the development of the labour process is not only frozen in time, but any given level of technology is assumed to be exogenously determined outside of the social relation between capital and labour. Finally, the supply and demand for labour are primarily analysed as separate and stationary entities that have little dynamic interaction.

Given the additional assumptions of perfect competition and profit maximising behaviour based on the principle of diminishing returns and the marginal substitution of inputs, the equilibrium wage rate is then determined by the interaction of supply and demand within the aggregate labour market (see fig. 3.1).

In the familiar graph the equilibrium price of labour $(w/p)_E$ is determined essentially like any other commodity by the intersection of the appropriate supply and demand curves. The demand for labour (D_L) is identical to the marginal product of labour, and its downward slope is derived from the 'law' of diminishing returns. The analysis of labour supply (s_L) is based on the assumption that workers are like all other suppliers who freely offer their goods and services in order to maximise their individual self-interest. Here, however, the worker's goal is to maximise utility (not profits), and the marginal calculus is based on the trade-off between work and leisure. Except at fairly high levels of income, it is generally argued that an increase in the price of leisure time (i.e. the hourly wage rate) will primarily induce workers to pursue less leisure time and so, work more. Consequently, the supply of labour will be positively related to the wage rate.

2 Within this discussion of orthodox wage theory, we will be abstracting from recently developed efficiency wage arguments. As noted in chapter 2, these arguments do attempt to revise the neoclassical framework so that it can at least theoretically account for the persistence of both involuntary unemployment and noncompetitive wage differentials. As we have already pointed out, however, these theories have more than their fair share of logical and empirical problems.

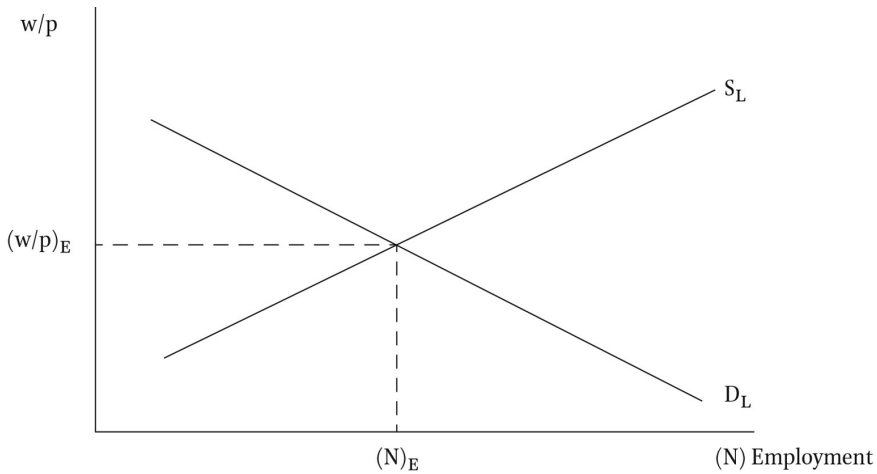


FIGURE 3.1 *The Neoclassical Aggregate Labour Market*

As figure 3.1 clearly indicates, the assumed shapes of the demand and supply curves for labour ensure that the wage level will eventually settle at a real wage rate $(w/p)_E$ that is precisely equal to the marginal product of labour. From the assumptions of general equilibrium theory, it also follows that if all imperfections and frictions are absent from both capital and labour markets, all markets will clear. As a result, all resources are fully and efficiently utilised and maximum benefits accrue to all participants. Both capital and labour receive their rightful share of the net product, and the full utilisation of capital results in the full employment of labour.

Within orthodox theory, it is also important to point out that the long-run equation of the wage rate with labour's marginal product is ultimately guaranteed by competitive market forces and the profit maximising behaviour of the firm. Thus, deviations of the wage level from the marginal product of labour are strictly limited to minor, short-run variations. As Cartter explains:

[T]he marginal productivity principle states that there is a direct functional relationship between the level of wages and the level of employment, and that a rational employer will attempt to adjust one or both of these variables so that the marginal product of labour is equal to the wages of labour. Only in a case where an employer had no control over the wage rate and the amount of employment would the marginal productivity principle be inapplicable.³

3 Cartter 1959, p. 19.

Given this rigidly defined relationship between the wage rate and the marginal product of labour, there is little room and little rationale for workers and their unions to attempt to increase their wage share. Indeed, if workers should 'irrationally' attempt to alter this competitive outcome by forcing wage rates above their equilibrium level, they will be forcing the economy to move away from this maximally efficient position, causing both output and employment to decline. Thus, it is not terribly surprising that neoclassical economists who continue to maintain that the above arguments provide a good first approximation of the real underlying forces within the capitalist economy have very few positive things to say about the aggregate economic effects of trade unions.⁴

Once this analysis of full employment and perfect equity within the aggregate labour market is accepted, it is simple to derive a similar set of optimal results regarding the analysis of wage differentials among workers of equal skill and ability. In addition to the assumptions concerning perfect competition and the profit maximising behaviour of the capitalist firm, all that is needed is the further assumption of the 'perfect mobility of labour'.

If wage rates within any particular industry should momentarily rise above the average rate for similar workers in other industries, the assumption of perfect labour mobility suggests that workers will immediately migrate toward this high-wage sector. As long as workers offer to work at slightly lower wage rates, the high-wage firms will be induced to increase their employment levels by moving down their marginal product curves. In the meantime, the exodus of workers from the lower wage sectors will cause these low-wage firms to increase their wage rates as they are forced to move up their marginal product curves in order to hold on to their declining workforces. Within a short period of time, capitalist competition and the mobility of labour will tend to eliminate any unwarranted differentials in inter- and intra-industry wage rates. And, once again, there is very little room for the substantial and persistent variation of wage rates.

Within the neoclassical framework, it is also important to note that capitalist competition and labour mobility will generally tend to protect workers from employers who might otherwise attempt to force them to work at substandard wage rates. Summarising this argument in his introductory text, Kaufman notes:

4 See Lindbloom 1949; Cartter 1959; Rees 1977; and Friedman and Friedman 1980.

Because workers are free to quit one employer and find another, the existence of labour mobility acts as a check on the employment practices and compensation policies of employers. In a competitive market workers will leave an employer who pays below the going rate or has substandard working conditions and will seek employment elsewhere. *The competition between employers thus serves as an automatic policeman on social conditions of labour.*⁵

Of course, the ability of workers to 'seek employment elsewhere' requires the ample presence of other job openings or full employment. This is not a serious difficulty, however, because full employment has already been assured by the same market forces that also determine the general level of wages in the aggregate labour market.

Given these assumptions concerning labour mobility and the tendency toward perfect equity, union efforts to increase wage rates within any particular sector will once more spell disaster. If workers should succeed in artificially raising their wage rates above other sectors, declining levels of employment within the high-wage sector will tend to result in over employment and declining wage rates in the nonunion sectors. Thus, it is generally argued that 'the gains that strong unions win for their members are primarily at the expense of other workers'.⁶

In sum, by carefully abstracting from the historical development of capitalist property relations, all potential class antagonism within the capitalist labour process, and the essential dynamics of capitalist accumulation, the neoclassical picture of the competitive labour market presents workers with the best of all possible worlds. Workers are free to exercise their own individual choice between work and leisure, and the forces of competition automatically ensure perfect efficiency, perfect equity, and a decent job for all who are 'seriously' looking for work.

It is well known that Marx's analysis of the underlying dynamics of the capitalist labour market is diametrically opposed to the neoclassical view. In addition to arguing that workers are systematically exploited, Marx also argues that the combined effects of unbridled capitalist competition and continual underemployment are absolutely disastrous for the working class and many other

5 Kaufman 1986, p. 16, emphasis added.

6 Friedman and Friedman 1980, p. 233. It is interesting to note that even ardent defenders of the merits of unions like Freeman and Medoff (1984) essentially accept these logical assumptions concerning the 'monopoly effects' of unions within competitive economies.

sectors of the population. Therefore, unions are not only morally justified, they are essential to allow workers to protect themselves from capital's continual onslaught.⁷

What is not often pointed out, however, is that contrary to both institutional and radical critiques of neoclassical theory, Marx's scathing indictment of the capitalist mode of production did not require arguments of monopoly or any other type of market imperfections. In fact, Marx derived his far more devastating critique of the system when capitalism was not yet encumbered by modern state intervention and all precapitalist barriers to competition were increasingly being broken down.

In order to understand Marx's distinctive analysis of the capitalist labour market, we must therefore begin from completely different starting points that have very little in common with neoclassical assumptions or methodology. We must abandon the methodology of comparative statics which abstracts from the essential dynamics of capitalist accumulation, and we must develop a very different conception of the real dynamics of capitalist competition. We must also remember Marx's warning that 'the labour market is ruled by other laws than the product market'.⁸ Contrary to neoclassical theory, we must therefore pay careful attention to the unique features of the labour market that fundamentally distinguish it from all other markets in the capitalist economy.⁹

The Special Commodity Labour Power

Although the two main forms of wage payment (i.e. piece rates and hourly rates) appear to indicate that workers are paid for all of the labour that they actually perform, Marx begins his analysis of wage determination by arguing that what workers really sell to the capitalist is not their actual labour time, but their 'labour power' (or their ability to work). Consistent with Marx's labour

7 Marx 1983, 1970, 1967a.

8 Marx 1973, p. 521.

9 Like Marx, the postwar institutionalists also argued that the labour market had a number of critical and unique properties. For a useful review of these properties, see Kaufman 1988b. Efficiency wage theorists have also begun to recognise that the labour market has its own peculiar dynamics. To develop Marx's analysis of the aggregate labour market, we will be drawing primarily from his most important writings on this subject. These include chapter 25 of volume 1 of *Capital* (1867), an address to the First International that was eventually published under the title 'Wages, Price and Profit' (1865), and last, a much earlier essay entitled 'Wage-Labour and Capital' (1849).

theory of value, the value of this commodity labour power is then determined, like all other commodities, by the socially necessary labour time which is required for its reproduction.

In the case of unskilled labour, the reproduction of labour power primarily requires a daily subsistence bundle which will allow the worker and his (her) family to survive in a normal and healthy state.¹⁰ The value of this type of labour power is therefore largely determined by the value of these daily means of subsistence. In the case of skilled labour power, the costs of training must also 'enter pro tanto into the total value spent in its production'.¹¹ Thus, different types of labour power have different costs of production and hence, different centres of gravity around which daily wage rates will tend to fluctuate. Regardless of whether workers are paid by the week, the hour, or the piece, however, it is the *value of their labour power* that will ultimately regulate all of these more complex forms of actual wage payment.¹²

The most critical distinctive aspect of the commodity labour power is that it is the only commodity within the capitalist economy whose use value is capable of generating not only new value, but a surplus of value over and above what it costs to daily reproduce it. The generation of this surplus value simply requires that capitalists possess the ability to force workers to work beyond the period of time necessary to reproduce the value of their labour power and hence, their daily wage. And, of course, it is this surplus value that is produced over and above the worker's daily wage that is the ultimate source of the capitalist's profits and the principal goal of all capitalist production. Moreover, it is the rate of surplus value (or the proportion of unpaid to paid labour) that forms the foundation for Marx's analysis of the more complexly determined rate of profit.

10 Marx 1967a, pp. 171–2.

11 Marx 1967a, p. 172.

12 Although neoclassical economists vehemently reject Marx's argument, it is interesting to note that Frederick Taylor apparently had a similar view of the underlying determinants of the daily wage. In his explanation for the prevalence of 'systematic soldiering' among workers, he pointed out that 'the causes for this are, briefly, that practically all employers determine upon a maximum sum which they feel it is right for each of their classes of employees to earn per day, whether their men work by the day or piece' (and regardless of how much work they ultimately do); Taylor 1911, pp. 21–3. Of course, Taylor's own peculiar notion of a 'fair day's work for a fair day's pay' was exemplified in his famous Schmidt Pig Iron experiment where he managed to raise Schmidt's productivity by almost 400 percent and merely raised his wages by 60 percent (Taylor 1911, p. 47).

In the initial stages of capitalist development, increases in the rate of surplus value are primarily achieved through the forced extension of the working day without commensurate compensation. This is what Marx called the generation of 'absolute surplus value'. Once modern industry is developed and limits are imposed on the extension of the work day by the state, the rate of surplus value is mainly increased through the generation of 'relative surplus value' or the reduction of the necessary portion of the work day that is required to reproduce the value of the worker's labour power.¹³ This is achieved through increases in the productivity of labour that reduce the value of the required subsistence bundle and hence the value of labour power.

Once the secret of profit making is revealed in this manner, we obviously arrive at one of the most fundamental distinctions between Marx and neoclassical theory. Not only is the wage determined by something quite distinct from the value of the worker's marginal product, but the systematic deviation of the wage rate *below* the value that workers produce is absolutely essential for the continued reproduction of the capitalist mode of production. Consequently, within the Marxian analysis of the aggregate labour market, one of the most critical issues becomes the investigation of how the unique properties of the labour market interact with the dynamics of capitalist accumulation to ensure that movements in the wage level will generally remain within the limits of capitalist profitability.

As we shall see shortly, Marx argued that one of the primary determinants of the aggregate wage level is the class struggle between capital and labour. Indeed, because of the constant reproduction of a reserve army of labour, he argued that workers would only be able to raise their real wage rates through sustained and organised warfare with their employers. Yet, although the class struggle clearly has a very significant impact on wage levels, Marx also argued that both the rate and the mass of surplus value must continue to rise in order to sustain accumulation. As the following analysis of the aggregate labour market unfolds, we will therefore see that the regulation of movements in the wage level involves a complex dialectic between worker efforts to raise their wage rates and the conditions of capitalist accumulation that can only allow wages to rise within strict limits.

In the remainder of this chapter, we will argue that capitalist economies have two sets of mechanisms that regulate movements in the general wage level. The first mechanism is initially provided by what Marx called the 'primitive accumulation of capital', whereby the means of production are essentially

13 Marx 1967a, pp. 312–15.

monopolised by the capitalist class and the nascent working class is forced to become 'doubly free'. The second set of regulating dynamics concerns the capitalist mode of production proper and involves the laws of capitalist accumulation that constantly mechanise the labour process and continually generate a reserve army of labour.

Before going on to a detailed discussion of these arguments, it is important to note that the key entry point for the class struggle over wages and conditions is provided by Marx's discussion of an 'historical and moral' element within the determination of the value of labour power.¹⁴ In addition to the previously discussed physical element which is determined by the means of subsistence which are 'physically indispensable' for the worker's reproduction, Marx also argued:

[T]he value of labour is in every country determined by a traditional standard of life. It is not mere physical life, but it is the satisfaction of certain wants springing from the social conditions in which people are placed and reared up ... This historical or social element, entering into the value of labour, may be expanded, or contracted, or altogether extinguished.¹⁵

Although some Marxist¹⁶ and non-Marxist¹⁷ writers have argued that Marx generally supported the classical notion of an 'iron law of wages' whereby wage rates would be continually reduced to the bare subsistence level, Marx eventually argues that real wages would tend to rise given two essential conditions. First, the system had to be in a period of healthy accumulation where productivity and the rate of surplus value were rising. Second, workers had to be effectively organised so that they would be able to *fight* for these improvements in wages and conditions.¹⁸

The key point here is to recognise that it is precisely by struggling to alter the historical and social elements of the value of labour power that workers can achieve long-term gains in their standard of living. As Engels once noted:

14 Marx 1967a, p. 171; 1970, p. 225.

15 Marx 1970, p. 225. Although this social element in the determination of the going wage appears to be a new discovery for efficiency wage theorists like Akerlof (1982) and Solow (1990), it was obviously a critical component of Marx's wage theory. Postwar institutionalists also wrote extensively on this issue.

16 Meek 1967.

17 Hollander 1984.

18 See Marx 1967a, pp. 523, 604. See also Marx 1970.

The average rate of wages is equal to the sum of necessities sufficient to keep up the race of workmen in a certain country according to the standard of life habitual in that country ... The great merit of Trades Unions, in their struggle to keep up the rate of wages and to reduce working hours, is that they tend to keep up and to raise the standard of life.¹⁹

It is also important to note that Marx's discussion of an historically determined 'standard of living' was not limited to the wage level. Bound up with the determination of the average wage level was also the social determination of the average length and intensity of the work day, and the average number of family members that would be required to enter the labour force in order to reproduce the family.²⁰ Thus, in sharp contrast to neoclassical discussions of labour supply that primarily stress individual free choice, Marx argues that changes in the wage level, the length of the work day, and the average number of workers per family are all bound up with the dynamics of accumulation and class struggle.

Primitive Accumulation and the 'Doubly Free' Labourer

The capitalist system pre-supposes the complete separation of the labourers from all property in the means by which they can realize their labour. As soon as capitalist production is once on its own legs, it not only maintains this separation, but reproduces it on a continually extending scale.

— MARX, *Capital*, Volume 1

In *Capital*, Marx argues that a fundamental precondition for the proper functioning of the capitalist labour market is the creation of the 'doubly free' labourer. Because capital must be able to move freely and rapidly into new areas of profitable production, the capitalist system requires a highly mobile workforce that is free to transport its labour power wherever and whenever capital demands it. Capital must also have the ability to sever its relations with labour whenever conditions of profitability no longer warrant labour's continued employment. Thus, unlike previous modes of production that also exploited the labouring masses, the capitalist system requires labourers who

19 Engels cited in Draper 1978, p. 95.

20 See Marx 1967a, pp. 395, 519. See also Humphries 1977.

are 'free' from all of the old precapitalist fetters: the bondage of slavery, the feudal obligations of serfdom, and the many restrictions of the guild system.

Unfortunately for the labourer, however, capitalism also requires workers to be 'free' in a very negative sense. In order to create the necessary conditions for the continued exploitation of labour power, capitalism also requires the labourer to be *free of all means of production*. As long as labourers have access to the land and other independent means of livelihood, it is extremely difficult for capital to establish a permanent supply of workers who are willing to submit to such exploitation. When workers have no alternative, however, they are *forced* to sell their labour power to capital. As noted in chapter 2, this is what Marx terms the 'formal' subordination of labour.

The other side of this process of separating the means of production from the potential working population is the monopolisation of this property within the hands of the developing capitalist class. This dialectical process, which masses capital at one pole and labour at the other, is what Marx termed the 'primitive accumulation of capital'. In a detailed account of the genesis of capitalist property relations within England, Marx argues that this process of primitive accumulation took its 'classic form'.²¹ Here the primary mechanisms for divesting the vast majority of the population from the means of production were outright theft, fraud, and terror.

The spoliation of the church's property, the fraudulent alienation of the State domains, the robbery of the common lands, the usurpation of feudal and clan property, and its transformation into modern private property under circumstances of reckless terrorism, were just so many idyllic methods of primitive accumulation. They conquered the field for capitalist agriculture, made the soil part and parcel of capital, and created for the town industries the necessary supply of a 'free' and outlawed proletariat.²²

As Marx noted, as soon as the monopoly of the means of production is firmly established, the capitalist mode of production proper will automatically tend to reproduce these peculiar property relations on a 'continually extending scale'. Briefly, as modern large-scale production increasingly erodes the viability of petty commodity production and the domestic economy, more and more

²¹ Marx 1967a, p. 716.

²² Marx 1967a, p. 733. The work of a number of contemporary historians has largely supported Marx's historical analysis of primitive accumulation. See Dobb 1954; Hill 1969; and Brenner 1977.

sectors of the population are forced into the proletariat. Even within the capitalist class, the relentless concentration and centralisation of capital consolidates the means of production into relatively fewer and fewer hands. Finally, this same process, which continually increases the necessary capital requirements within more and more spheres of production, increasingly narrows the opportunities for workers to move up and out of the working class.

Within the United States, this process of proletarianisation possessed several unique characteristics as a result of the unusual availability of 'free' land (largely seized from Native Americans) and the extensive use of immigrant labour. Nevertheless, the long-run results of the concentration and centralisation of wealth have been quite compelling. In the early 1800s, approximately 80 percent of the US population was self-employed. By 1970, however, only 10 percent of the population retained this independent status.²³ Of course, at the other end of the spectrum, there has been an equally impressive concentration of productive wealth within the hands of capital. As the now infamous 1986 JEC report on the 'Concentration of Wealth in the US' has shown, the wealthiest 10 percent of the population now owns over 80 percent of the productive wealth. Excluding the ownership of private homes, this includes 77.8 percent of all real estate, 89.3 percent of corporate stock, and 90.4 percent of all bonds.²⁴

Thus, it is one of the great ironies of the capitalist mode of production that the essential mechanisms of 'free' capitalist competition and accumulation both require and reproduce this growing monopoly of the means of production. And it is precisely this monopoly which denies the labourer any realistic access to the means of production that is one of the most essential conditions for the functioning of the free labour market.

It is characteristic of neoclassical economics that it tenaciously holds onto the positive side of free labour while it carefully ignores this darker side. Indeed, by treating current property relations in the means of production as 'given endowments', neoclassical economics carefully abstracts from the historical process of primitive accumulation altogether. Moreover, by clinging to the worker's legal right to hold property, orthodox economics generally chooses to

23 Braverman 1974, p. 53.

24 See Kloby 1987. For an interesting account of the political scandal that this report subsequently generated at the Federal Reserve, see *Dollars and Sense*, April 1987. [As the reader of this new edition is probably aware, these trends of increasing concentration of wealth and income within the US have unfortunately continued. As Emmanuel Saez has shown, the share of income going to the top 1% increased from 9.3% (1981) to 23.5% in 2007 (Saez 2009). Moreover, the top 5% actually captured 74.2% of the total growth in household wealth from 1983 to 2010 (Mishel et al. 2012, p. 382)].

ignore the immense barriers that make the realistic acquisition of these means of production a virtual impossibility for the vast majority of the working class. As chapter 5 explains in greater detail, the adoption of an essentially idealised notion of capitalist competition also allows orthodox theory to ignore the painfully compelling logic of the concentration and centralisation of capital.²⁵

The Unique Logic of Labour Supply

Before developing Marx's analysis of the dynamics of capitalist accumulation, it is important to note that the unique characteristics of the capitalist labour market that have already been presented have important implications for the discussion of labour supply. As noted previously, neoclassical theory tends to analyse the labour market in precisely the same way that it analyses product markets. Thus, just as declining prices will tend to eliminate excess supply in the product market, it is also argued that declining wage rates will tend to eliminate excess labour in the labour market. Or, in other words, decreasing wage rates will supposedly induce a significant number of excess workers to voluntarily withdraw from the labour force.

Once we recognise that the key impetus pushing the *doubly free* worker into the labour market is not individual free choice but the often brutal compulsion of having to survive, the reaction of labour supply to declining wage rates is likely to be quite the opposite. Given that the primary motivation of the vast majority of workers is to maintain an historically established customary standard of living, the reduction of the wage below this normal level will tend to *increase* the supply of labour, not decrease it. As real wages fall, more members

25 Unlike neoclassical economists, Adam Smith was acutely aware of the fact that the development of capitalism meant the accumulation of capital ('stock') into the hands of one class. He also clearly understood that these new property relations gave the manufacturing class a decisive advantage in the conflict over wage rates: 'It is not, however, difficult to foresee which of the two parties must, upon all ordinary occasions, have the advantage in the dispute, and force the other into a compliance with their terms. The masters, being fewer in number, can combine much more easily ... In all such disputes the masters can hold out much longer. A landlord, a farmer, a master manufacturer, or merchant, though they did not employ a single workman, could generally live a year or two upon the stocks which they have already acquired. Many workmen could not subsist a week, few could subsist a month, and scarce any a year without employment' (Smith 1776, p. 66). Of course, while Smith's rather astute comments were curiously missed by neoclassical economists, they were not lost to Marx.

of the family will be forced into the labour market and those already working will generally be pushed to work longer hours. Hence, both the number of workers and the average hours worked will tend to rise.²⁶

In other words, we can already see that the process of eliminating unemployment that is generally assumed within neoclassical economics defies the unique logic of labour supply. In fact, within the contemporary workforce, the only people whose labour supply may actually decline as wage rates fall are those *outside of the working class* who clearly have more to fall back on than their labour power (i.e. doctors, lawyers, working proprietors, etc.). Between 1900 and 1970, Braverman argues that this far more privileged group decreased from 50 percent of the broadly defined civilian labour force down to 30 percent.²⁷ Thus, neoclassical economics not only carefully abstracts from all notions of class based on property relations, but it derives its essential dynamics of 'labour supply' from a declining minority within the civilian labour force. A peculiar method of abstraction to say the least!

Capitalist Accumulation and the Reserve Army of Labour

From our initial discussion, it should be clear that the labour market cannot be analysed like any other commodity market. When Marx stated that 'the labour

26 During the industrial revolution in Great Britain, Marx documents how the labour supply was greatly increased as real wages were driven downward and increasing numbers of women and children were brutally propelled into the workforce (Marx 1967a, chapters 10 and 15). As real wage rates declined between 1973 and 1986, a similar change in labour supply occurred within the US economy. In their study on *The State of Working America*, Mishel and Frankel point out that the average worker had to work 95 more hours in 1987 (as compared to 1979) 'in order to prevent a large drop in annual earnings'. Thus, 'the average worker in 1987 was working 5.7% more hours at an hourly wage 9.3% less than 1979' (1991, p. 71). Within the same period, there was also a 22% increase in the average number of wage earners per family (1991, p. 39). Finally, both Humphries (1983) and Mishel and Frankel (1991) argue that the 1980s witnessed an increasing number of women who were primarily entering the labour force 'because of pressures on working class standards of living' (Humphries 1983, p. 14). See also Power 1988.

27 See Braverman 1974, chap. 17. [An excellent and more recent analysis of the class composition of the US labour force can be found in Zweig 2012. Based on 'the degree of authority and independence the employee typically has on the job', Zweig estimates that approximately 63.4% of the labour force in 2010 were in traditional working class jobs, while 36% were in middle class occupations (i.e. small businessmen, supervisors, managers and higher level professionals). See Zweig 2012, pp. 29–30].

market is ruled by other laws', however, he was primarily referring to the fact that the dynamics of capitalist accumulation will tend to regulate *both* the supply and the demand for labour in such a way as to ensure that an excess supply of labourers (or 'reserve army of labour') is constantly reproduced.²⁸ It is to this argument that we must now turn.

Contrary to John Bates Clark, who claimed that 'static laws will never cease to be dominant',²⁹ Marx's analysis of the aggregate labour market is inextricably intertwined with his dynamic analysis of the laws of capitalist accumulation. Moreover, it is only within this dynamic context that is so foreign to neoclassical comparative statics that he is ultimately able to unearth the unique central tendencies of the capitalist labour market.

In chapter 25 of *Capital*, volume 1, the argument for the continual generation of the reserve army of labour relies on the dynamic interaction of three key factors: changes in the rate of accumulation (or the rate of growth of capitalist investment), changes in the organic composition of capital,³⁰ and changes in the labour force participation rate of the potential working population. Although all of these factors interact with one another, it will be useful to initially develop these arguments one at a time.

Changes in the Rate of Accumulation

Abstracting from technical change, increases in the rate of accumulation will tend to generate proportional increases in the demand for labour. Thus, *in the early stages of capitalist development* when capital intensity was not yet rising significantly, Marx pointed out that prolonged periods of accelerated accumulation often tended to put pressure on the 'customary' supply of labour. Hence, wage rates sometimes had a tendency to rise due to market forces alone.³¹

28 'What experience shows to the capitalist generally is a constant excess of population, i.e., an excess in relation to the momentary requirements of surplus labour absorbing capital' (Marx 1967a, p. 269).

29 Cited in Cartter 1959, p. 219.

30 In Marxist terminology, the *technical composition of capital* is the ratio of the mass of means of production (i.e. plant, equipment, and raw materials) relative to the number of labourers who are employed by that same mass. Thus, it is essentially equivalent to the more traditional 'capital labour ratio' in physical units. The closely related *value composition of capital* is the ratio of the *value* of this means of production relative to the value of the total labour power employed (i.e. total wage costs). Finally, the value composition 'in so far as it is determined by its technical composition and mirrors the changes in the latter' is termed the *organic composition of capital* (Marx 1967a, p. 612).

31 Marx 1967a, p. 613.

Although capital's ability to regulate the labour market is far more limited under these special circumstances, Marx nevertheless convincingly argues that the dynamics of accumulation will tend to ensure that movements in the wage level will remain within the boundaries of capitalist profitability. In other words, it is the rate of accumulation that remains the critical 'independent' variable, and not movements in the supply of labour, or movements in the wage level.³² If an accelerated rate of accumulation should begin to put pressure on the supply of labour and rising wage rates do actually begin to push profit rates below their normal level, Marx argues that the tempo of accumulation will merely slow down until a more suitable relation between the demand and supply of labour is re-established.

If the quantity of unpaid labour supplied by the working class, and accumulated by the capitalist class, increases so rapidly that its conversion into capital requires an extraordinary addition of paid labour, then wages rise, and all other circumstances remaining equal, the unpaid labour diminishes in proportion. But as soon as this diminution touches the point at which the surplus-labour that nourishes capital is no longer supplied in *normal* quantity, a reaction sets in: a smaller part of revenue is capitalised, accumulation lags, and the movement of rise in wages receives a check. *The rise of wages therefore is confined within limits that not only leave intact the foundations of the capitalist system, but also secure its reproduction on a progressive scale.*³³

Before discussing changes in the organic composition of capital, we must point out that most wage/profit-squeeze theories of capitalist crisis have been either explicitly or implicitly drawn from this very incomplete discussion of the general law of capitalist accumulation within the first section of chapter 25.³⁴ In addition to the obvious error of deriving an analysis of the modern labour market from an analysis that abstracts from one of the most important modern elements of the accumulation process (i.e. rising capital intensity), these arguments have also tended to misinterpret Marx's preliminary argument even on its own limited grounds.

The above passage makes it clear that Marx is essentially discussing a *dynamic* process whereby the tempo of accumulation is tendentially adjus-

32 Marx 1967a, pp. 619–20.

33 Marx 1967a, p. 620, emphasis added.

34 See Dobb 1937 and Boddy and Crotty 1975.

ted in order to assure that movements in the wage rate and movements in the demand and supply for labour will remain within the confines of 'normal' capitalist profitability. In a sense, the dynamic interaction between the demand and supply of labour is like that of repelling magnets of the same pole. As the demand for labour approaches a critical distance from labour supply, it is automatically repelled long before these two sides of the market are able to meet.

To establish the grounds for a profit-squeeze argument, however, this portion of Marx's argument is generally interpreted as a *static* argument whereby rapid accumulation virtually depletes the reserve army and rising wage rates eventually cut deep into profit rates. Hence the crisis.³⁵

As both Anwar Shaikh and John Weeks have correctly pointed out, however, Marx's argument merely suggests that accumulation 'slackens' or 'lags'. Indeed, long before the reserve army is significantly depleted and capitalist profitability is seriously compromised by sharply rising wage rates, the deceleration in the rate of accumulation will have already resolved the initial problem.³⁶ Thus, even under these very limited circumstances when the level of capital intensity is held constant, Marx's discussion does not imply that rising wage rates will periodically precipitate serious downturns in the economy.

An interesting illustration of how one might begin to more formally model the dynamic interaction between the rate of accumulation, rising real wage rates, and movements in the reserve army was originally presented by Richard Goodwin in 1967. In an attempt to develop an explanation for capitalism's recurrent business cycles, Goodwin developed a model of the aggregate labour market which assumes that capital intensity and productivity will both tend to increase at the same rate. Thus, the capital/output ratio also tends to remain constant.³⁷ Given these assumptions, he then shows how fluctuations in the size of the reserve army and corresponding fluctuations in the growth rate of wages will tend to regulate the aggregate labour market so that the system cycles endlessly around a tendential average level for both the reserve army and

35 For example, Boddy and Crotty use the identical passage from chapter 25 of *Capital* to argue that 'Marx saw the relentless drive for capital accumulation leading, through conflict between capital and labour over wage and profit shares, to cyclical booms and busts' (1975, p. 2). They also go on to argue that 'evidence' from the postwar economy clearly shows that 'profits come under severe pressure during the latter part of the expansion' presumably due to rising wage rates (1975, p. 9). We will refute this empirical claim at the end of this chapter.

36 See Shaikh 1978 and Weeks 1979.

37 This result follows from the fact that the capital/output ratio (κ/Y) can be written as $(\kappa/L) \div (Y/L)$.

the rate of surplus value. As in Marx's own argument, capitalist accumulation remains the 'independent variable' and is never seriously disrupted, the rate of growth of wages is kept in line with productivity growth, and the reserve army is continually reproduced.³⁸

As will soon become apparent, Marx's analysis of the dynamics of technical change is somewhat different from Goodwin's model. In addition to arguing that both capital/labour and capital/output ratios will tend to rise over time, Marx also argues that real wages will normally tend to rise more slowly than productivity. Thus, not only will the reserve army tend to grow larger over time, but the rate of surplus value will also tend to rise.

Finally, from a methodological standpoint, it is also important to note that in volume 1 of *Capital*, Marx is not yet ready to discuss the critical point at which falling profit rates will actually bring about a halt to accumulation and general crisis will ensue.³⁹ In fact, the analysis of general crisis cannot be logically derived until Marx has developed his argument concerning the rising organic composition of capital and the 'tendency of the rate of profit to fall' which occurs in the third volume of *Capital*. When he does finally develop his argument for the falling rate of profit, he notes that 'the tendency of the rate of profit to fall is bound up with a tendency for the rate of labour exploitation to rise. Nothing is more absurd for this reason, than to explain the fall in the rate of profit by a rise in the rate of wages, although this may be the case by way of an exception'.⁴⁰ In order to explain why rising wages will only cause a fall in the rate of profit 'by way of exception', we must continue to develop Marx's argument within chapter 25.

Movements in the Composition of Capital

The first two sentences of chapter 25 make it quite clear that the key element in Marx's analysis of the aggregate labour market is capitalism's modern tendency to increase the organic composition of capital. 'In this chapter we consider the influence of the growth of capital on the lot of the labouring class. The most important factor in this inquiry, is the composition of capital and the changes it undergoes in the course of the process of accumulation'.⁴¹

Given the inherent antagonism between capital and labour that is rooted in capital's unrelenting need to maximise the extraction of surplus value, Marx argued that the long-run tendency to mechanise and continually raise the

38 Goodwin 1967 and Gandolfo 1980.

39 Shaikh 1978.

40 Marx 1967c, p. 240.

41 Marx 1967a, p. 612.

capital intensity of production is a necessary and logical development of the capital/labour relation.⁴² Within the capitalist production process, mechanisation acts as a powerful lever to raise the exploitation of labour in a number of important ways. At the aggregate level, it is the primary means of increasing the productivity of labour within those industries that either directly or indirectly produce workers' means of subsistence. Thus, it is also the key means for reducing the value of labour power and increasing relative surplus value.

Within particular industries, mechanisation also tends to reduce the average skill levels of the majority of workers employed. This deskilling process not only directly lowers the value of labour power (and so wage rates), but it also greatly reduces the ability of workers to control both the organisation and the intensity of the labour process. As mechanisation increasingly takes hold of production, the subjective elements of the labour process are constantly reduced, and workers are forced to work at a pace that is increasingly dictated by the objective demands of the machinery.⁴³ Finally, as labour intensity is increased and the required training time of the average worker is decreased, workers become increasingly vulnerable to competition from the reserve army of labour.

In sharp contrast to neoclassical economics, technical change is not exogenous, and the choice of technique is not primarily determined by the socially arbitrary selection of the proper input mix based on relative factor prices. Quite the contrary, as Shaikh has aptly noted, 'automation is intrinsic to capitalism and is its dominant form of technical change. It is the technological expression of the social relations of production under capitalism.'⁴⁴ Contrary to efficiency wage theories, mechanisation and deskilling (and not the payment of above-average wage rates) are also the primary mechanisms for increasing the intensity of labour.

Within our present discussion of the aggregate labour market, the most important result of this continual mechanisation is its long-term effect on the demand and supply of labour. Once accumulation is accompanied by a tendency for the organic composition of capital to rise, an increase in the rate of accumulation no longer implies a proportional increase in the demand

42 See Braverman 1974; Rosdolsky 1977; and Shaikh 1978.

43 Marx's classic discussion of the 'real subordination of labour' via mechanisation and deskilling is in chapter 15 of *Capital*, volume 1 (1967a). Modern discussions that have done an excellent job updating his analysis of the long-run effects of mechanisation can be found in Braverman 1974 and Zimbalist 1979. For contrasting viewpoints, see Hirschhorn 1984; Piore and Sable 1984; and Wood 1989.

44 Shaikh 1978. See also Marx 1967a, p. 361.

for labour. To the extent that capital intensity is increased, Marx notes that 'the additional capital formed in the course of accumulation attracts fewer and fewer labourers in proportion to its magnitude'. Moreover, the periodic conversion of the old existing capital 'repels more and more of the labourers formerly employed by it'.⁴⁵ Thus, *even within periods of rapid accumulation*, the mechanisation of the labour process will continue to generate a sizable reserve army of labour by expelling established workers on the one hand and repelling new workers on the other.

If we now combine our first two factors which regulate the reserve army, overall movements in the demand for labour appear to be the indeterminate outcome of two contradictory effects. On the one hand, increases in the rate of accumulation tend to enhance the demand for labour. On the other hand, increases in the organic composition tend to contract it. What is not often recognised, however, is that Marx argued that the latter effect would tend to limit the former for three reasons. First, the accumulation process is also accompanied by the centralisation of capital that 'simultaneously extends and speeds those revolutions in the technical composition of capital'.⁴⁶ Second, 'the change in the technological composition of the additional capital goes hand in hand with a similar change in the technological composition of the original capital'.⁴⁷ And finally, increases in the organic composition of capital will tend to lower the rate of profit and therefore dampen the rate of accumulation. Thus, although the absolute demand for labour will tend to rise during periods of normal accumulation, Marx argues that increases in the composition of capital will tend to ensure that this growing demand for labour will not overtake the available supply.

It is not merely that an accelerated accumulation of total capital, accelerated in a constantly growing progression, is needed to absorb an additional number of labourers, or even, on account of the constant metamorphosis of old capital, to keep employed those already functioning. In its turn, this increasing accumulation and centralization becomes a source of new changes in the composition of capital, of a more accelerated diminution of its variable, as compared with its constant constituent. This accelerated relative diminution of the variable constituent that goes along with the accelerated increase of the total capital, and moves more

45 Marx 1967a, p. 628.

46 Ibid.

47 Marx 1967a, p. 629.

rapidly than this increase, takes the inverse form, at the other pole, of an apparently absolute increase of the labouring population, an increase always moving more rapidly than that of the variable capital or the means of employment.⁴⁸

In sum, while the dynamics of capitalist accumulation under conditions of constant capital intensity tend to preserve the reserve army at a particular level, Marx argued that the rising organic composition of capital would tend to generate an ever increasing number of surplus workers.

Despite these compelling arguments, both Rosdolsky⁴⁹ and Weeks⁵⁰ have correctly pointed out that increases in the organic composition do not guarantee that labour power will 'always' be in adequate supply at any particular moment in time. Indeed, Marx also recognised that under certain historical conditions where the means of production have not yet been successfully monopolised by the process of primitive accumulation, 'the law of supply and demand favours the working man'.⁵¹ During the 1860s, for example, he noted that the relatively high wages of US workers were primarily due to 'the continuous conversion of wage labourers into independent, self-sustaining peasants'.⁵²

Within fully developed capitalist economies, however, there are two additional dynamics at work that *will* generally tend to ensure the reproduction of the reserve army. Although the first mechanism is essentially a more complex and more powerful form of the dynamic we have already discussed, the second concerns changes in the labour force participation rate. From our initial discussion of capitalist accumulation under conditions of constant capital intensity, we have seen that substantial inroads into the reserve army that do tend to raise the wage level will be automatically corrected by a deceleration in the rate of accumulation. Once changes in the organic composition of capital are introduced, however, periods of abnormally high demand for labour that seriously reduce the reserve army are much less likely. Nevertheless, if an exceptional situation does arise whereby wage rates are significantly pushed upward, capital now has an additional mechanism to correct this momentary imbalance. Indeed, not only will the rate of accumulation tend to decelerate, but the long-run tendency to increase capital intensity may also accelerate. Thus, excessive

48 Marx 1967a, pp. 629–30.

49 Rosdolsky 1977, pp. 298–90.

50 Weeks 1979, p. 269.

51 Marx 1970, p. 226.

52 Ibid.

reductions in the reserve army may be corrected through the accelerated expulsion of employed labourers. As Marx noted in his argument against citizen Weston, 'This is the general method in which a reaction, quicker or slower, of capital against a rise of wages takes place in old, settled countries'.⁵³

Changes in the Labour Force Participation Rate

The third and final factor that forms an essential element in the continual generation of the reserve army is the effect of accumulation on the labour force participation rates of the potential working population. Although Marx clearly rejected Malthusian arguments that directly linked movements in the wage rate to changes in the supply of labour via changes in population growth,⁵⁴ he did argue that the modern process of capitalist accumulation would tend to have profound effects on labour force participation rates. Once the monopoly of the means of production has been secured and the exit of labour out of the labour market is virtually sealed off, the further development of modern industry continues to force larger and larger sectors of the population into the labour market. As a result, the field of capitalist exploitation is no longer restricted to the 'customary' working population, and much more elastic boundaries can be established for potential labour supply.

In the initial stages of modern industry when the developing working class has not yet begun to organise, the potential sources of labour supply are expanded in the most brutal fashion. As the detailed division of labour takes on its most hideous form within modern industry, the value of labour power and the resistance of skilled labour is greatly diminished. Thus, as wage rates are dramatically forced even below the value of labour power, the supply of labour hours is also increased through the inhuman extension of the working

53 Marx 1970, p. 227. Although Marx does suggest that the secular tendency toward more capital-intensive production may tend to be accelerated by rising wage rates, this argument should not be confused with neoclassical theory where relative factor prices are considered to be the primary determinants of the choice of technique. In neoclassical economics the secular rise in real wage rates is often used to explain the secular rise in capital intensity. In Marx, however, the explanation for these secular tendencies is clearly reversed. It is rising capital intensity that causes the productivity of labour to increase. And as we shall soon see, it is these increases in productivity that then create the potential basis for limited increases in the real wage.

54 'A beautiful mode of motion this for developed capitalist production. Before, in consequence of the rise of wages, any positive increase of the population really fit for work could occur, the time would have been passed again and again, during which the industrial campaign must have been carried through the battle fought and won' (Marx 1967a, p. 638).

day beyond its natural limits. Finally, the inadequate wage rate is then coupled with the commodification of the domestic economy and the lightening of factory labour. Thus, both the necessity and the possibility are developed for substantial increases in the labour force participation rates of unskilled women and children.⁵⁵

Once the working class has begun to organise and the state has placed certain minimal limits on both the use of child labour and the length of the work day, the primary mechanism for increasing labour force participation rates becomes the continual encroachment of large-scale enterprise on more and more spheres of petty commodity production. Here, of course, the most massive recruitment for the working class takes place through the destruction of independent crafts and small-scale agriculture.⁵⁶ An important source of female labour is also provided by the gradual erosion of domestic household production.

Marx's Reserve Army within the Modern Period

When we now consider the dynamic interaction of all of the above elements of capitalist accumulation, it certainly appears that Marx has developed a powerful argument for the constant reproduction of the reserve army of labour as a central tendency within capitalist economies. Because Marx's argument was developed in the late 1800s, however, objections to its relevancy within more modern capitalist economies may be raised. Two of the most frequently raised objections will be briefly discussed here.

Within advanced capitalist nations, for example, it may be argued that the potential sources of the reserve army will tend to become exhausted as the latent reserves of petty commodity production and small-scale agriculture eventually dry up. In addition, this shortage of labour reserves may be fur-

55 Marx 1967a, pp. 394–402. Although Marx argues that lesser physical strength was a significant barrier to the earlier entrance of large masses of women into the labour force, Veronica Beechey (1987) points out that a more important force defining both the timing and the specific points of entry for female factory labour was the patriarchal ideology embodied within the family and the closely related sexual division of labour.

56 Within the United States, Braverman argues that this process was the primary factor causing the working class portion of the 'civilian labour force' to grow from 50% in 1900 to over 69% in the early 1970s (Braverman 1974, p. 381). For an interesting conceptual framework that attempts to see how capital actually works on both sides of the labour market (supply and demand), see Humphries and Rubery 1984.

ther aggravated in advanced nations as their domination of the world market tends to enhance the internal demand for labour due to the rising demand for exports. This argument must also recognize, however, that the decimation of precapitalist forms of production, which has already largely taken place in the advanced capitalist nations, continues in very dramatic form within the less developed nations whenever these countries are penetrated by advanced foreign capital.⁵⁷ Equally important, the penetration of foreign industrial capital within these less developed countries implies that the reserve army of the advanced nations now takes on worldwide dimensions. Thus, as the *Dictionary of Marxist Thought* appropriately states in its entry on the 'reserve army of labour':

Modern capitalism spans the whole globe, and so does its reserve army. The starving masses of the third world, the importation and subsequent expulsion of 'guest workers' by the industrialized countries, and the flight of capital to low wage regions, are simply manifestations of this fact.⁵⁸

During the 1970s and 1980s, the rapid expansion of 'maquiladora' plants along the US/Mexican border was a dramatic example of US capital's growing access to low-wage labour reserves in less developed countries. As Rachael Kamel pointed out, these two decades witnessed the creation of more than 1,000 assembly plants employing approximately 300,000 Mexican workers at wage rates that were generally less than 10 percent of the US average.⁵⁹ Moreover, within the United States, both Fernández Kelly and Sassen have persuasively argued that the rapidly increasing migration of low-wage labour from Mexico, the Caribbean Basin, and Southeast Asia has been closely articulated with the rapid growth of foreign capital investment within these same areas.⁶⁰

57 See Mandel 1977; Braverman 1974; Shaikh 1980a; and Sassen 1989.

58 Bottomore 1983, p. 423.

59 Kamel 1989.

60 Kelly 1989 and Sassen 1989. [Since this book was first published in 1993, the majority of these low wage labourers in the maquiladoras have now been replaced by even cheaper workers from China, India, Bangladesh and Vietnam. Indeed, Richard Freeman recently pointed out that most economists have not yet come to grips with the fact that the global labour force literally doubled between 1980 and 2000 when 1.47 billion additional workers from China, India and the former Soviet Block were added to the global capitalist labour pool (see Freeman 2010). In 1999, it is also important to note that the UN Human Development Report estimated that approximately 1.3 billion people were living on less than one dollar a day. See Williamson 2000].

Finally, in *Labour and Monopoly Capital*, Braverman does an impressive job of demonstrating that the modern US economy is still quite capable of generating its own internal reserve army of labour. Indeed, even in the early 1970s, at the tail end of the most prolonged period of capitalist expansion in history, he convincingly argued that all three components of Marx's reserve army – floating, latent, and stagnant – were very much alive and well in the United States.⁶¹ Within the post-World War II period, Braverman points out that two of the most important sources of the reserve army have been the dramatic and complementary movements in male/female labour force participation rates. Although the overall labour force participation rate (LFPR) for the entire eligible population has not changed significantly since 1950, the male LFPR declined from 86.8 percent in 1950 to 76.8 percent in 1984. Of greater importance, the female LFPR increased dramatically from 33.9 percent to 53.0 percent.⁶²

Although neoclassical explanations for these changes primarily rely on changing preference structures based on income and substitution effects, Braverman argues that both of these statistical movements actually represent a significant increase in the 'relative mass of the industrial reserve army'.

Among male workers this takes the form of a sloughing off into the ranks of the so-called nonparticipants in the labour force, or in other words an increase of the 'stagnant' portion. Among female workers it takes the form of a growing body of female labour which is drawn from the mass of women who previously did not work, and hence represents an enlargement of the 'floating' and 'stagnant' reserve army of labour by additional hundreds of thousands and even millions each year ... The opposing forms taken by this basically unitary movement simply reflect the different starting points of male and female labour ... as well as the strong demand for female labour in the expanding mass occupations in contrast to the relative stagnation of the male mass occupations.⁶³

Reinforcing Braverman's earlier arguments, Jane Humphries has suggested that the declining standard of living in the late 1970s and 1980s has been an increasingly important factor driving more and more women from the latent to the floating sectors of the reserve army.⁶⁴

61 Braverman 1974, pp. 386–401.

62 These more recent figures are taken from Kaufman 1986, p. 92.

63 Braverman 1974, pp. 391–2.

64 Humphries 1983.

The second major objection to the reserve army as a central tendency within modern capitalist economies generally comes from Keynesian economists who are convinced that correct economic policies can essentially eliminate the problem of chronic underemployment. Here, it is important to remember that Marx's argument suggests that the continual generation of unemployment is not a product of disequilibrium. Nor is it a dysfunctional outcome of the capitalist system that can ultimately be rectified by good economic policy. On the contrary, it is an essential component of the process of capitalist accumulation for two fundamental reasons. First, as we have discussed throughout this chapter, the reserve army of labour provides capital with a critical mechanism for regulating movements in the wage rate. Second, it also provides capitalism with a necessary degree of flexibility.

Unlike neoclassical theorists who find it quite plausible to analyse movements of the system through minuscule changes suitable for the differential calculus, Marx argued that modern capitalist society must essentially be characterised as a system that is prone to sudden fits of expansion and frantic shifts of capital from one branch of production to another. Thus, 'in all such cases, there must be the possibility of throwing great masses of men suddenly on the decisive points without injury to the scale of production in other spheres. Overpopulation supplies these masses'.⁶⁵ Normal periods of accumulation therefore generally require both significant degrees of reserve capacity in industrial plant and a sizable reserve army of labour. Indeed, even in exceptional periods of accelerated accumulation, there is no necessary guarantee that full capacity utilisation will imply full employment.

The industrial reserve army, during the periods of stagnation and average prosperity, weighs down the active labour-army; *during the periods of overproduction and paroxysm, it holds its pretensions in check*. Relative surplus-population is therefore the pivot upon which the law of demand and supply of labour works.⁶⁶

Finally, at the empirical level it is difficult to argue that capitalism has exhibited any kind of tendency toward full employment even within the era of modern state intervention.⁶⁷ Even in the best of periods between 1950 and 1969, when state intervention appeared to be most effective, the official unemployment

65 Marx 1967a, p. 632.

66 Marx 1967a, p. 639, emphasis added.

67 As noted in the previous chapter, the chronic presence of involuntary unemployment has actually persuaded some neoclassical economists (i.e. efficiency wage theorists) to suggest

rate averaged 4.2 percent – despite two wars. Since that time, unemployment rates have begun to increase secularly as the average rate between 1975 and 1984 moved up to 7.5 percent.⁶⁸

Unlike the official unemployment rate, however, Marx's discussion of the reserve army includes both workers who are discouraged by continual failures to secure employment and underemployed workers who can only find part-time or irregular full-time employment. And, as radical economists have repeatedly pointed out, the inclusion of these groups of workers increases the official unemployment rate significantly. In June 1983, the official unemployment rate reached a post-World War II high of 10.4 percent. When the BLS estimates for discouraged workers and part-time workers seeking full-time work are included, however, the 'underemployment' rate jumps up to 14.8 percent.⁶⁹

Even more striking, if the alarming growth of involuntary part-time work is taken into account when evaluating the so-called 'jobs boom' of the 1980s, Mishel and Frankel show that 'the rate of underemployment was essentially the same in 1989 as in 1979, 9.8%'.⁷⁰ Thus, in sharp contrast to the 'full employment' claims of the neoconservatives, these writers argue that 'the trend toward part-time and temporary work and the growth of multiple job holdings has placed, along with unemployment, at least a fifth of the workforce in situations of labour market distress'.⁷¹

In conclusion, it is interesting to note that even in the boom years of the early 1950s when almost anything seemed possible, a few courageous institutional-

that there may be some merit to Marx's claim that unemployment is a necessary 'worker discipline device' (Shapiro and Stiglitz 1984). Unfortunately, however, Marx's causal argument has been turned on its ear. As we have just seen, Marx argues that the reserve army is the result of rising capital intensity via mechanisation and the peculiar dynamics of the aggregate labour market. Moreover, the combined action of mechanisation, deskilling, and the reserve army exerts substantial *downward* pressure on wage rates. Yet, in efficiency wage theory, unemployment is supposedly generated by capital's need to *raise wage rates* above the market clearing level in order to induce workers not to shirk.

68 Kaufman 1986, p. 532.

69 See *Dollars and Sense*, June 1983.

70 Mishel and Frankel 1991, p. 129.

71 Ibid. While Republicans like to celebrate the Reagan years, Democrats generally suggest that the Clinton years were a great time for working people. Yet in the middle of the Clinton 'boom' in 1996, 7 million workers were officially unemployed at a rate of 5.3%. Moreover, 4 million were involuntarily working part time, and 10 million full time workers were earning poverty wages at less than \$7 per hour. Thus, at least 15% of the labour force was in serious trouble. See Schwarz 1998.

ists argued that any meaningful analysis of the aggregate labour market had to accept the reality of chronic underemployment. Thus, in 1951, Lloyd Reynolds impatiently defended his assertion that underemployment is the realistic norm despite government efforts to eradicate it.

I am aware that some economists are annoyed by this sort of statement. In support of it I would point out that, except for war and immediate post-war years, the rate of full-time unemployment among manual workers has typically been in excess of 5 percent; that the amount of part-time unemployment probably approximates the amount of full-time unemployment in most years; that there are many additional workers who would enter (or remain in) the labour force if jobs were available to them; that there is a large chronic surplus of workers in agriculture, as well as much disguised unemployment in relatively unproductive urban occupations. When one considers all these things, it is amazing that anyone should deny the prevalence of underemployment.⁷²

On the Necessity of Worker Resistance

Once careful attention is paid to the dynamics of capitalist accumulation that are largely derived from the production of absolute and relative surplus value, the neoclassical visions of perfect equity and full employment within the labour market are replaced by a very different view. From Marx's historical analysis of primitive accumulation we discover that an essential precondition for the 'free' labour market is the virtual class monopoly of the means of production by a small minority of the population. And from his analysis of the central dynamics of modern capitalist accumulation, we find increasing rates of exploitation, the continual degradation and deskilling of labour, and the constant reproduction of a growing reserve of unemployed workers who are forced to live under the most brutal and inhumane conditions. Marx therefore concludes his discussion of the general law of capitalist accumulation with one of his most scathing indictments of the highly acclaimed 'free' labour market.

The law, finally, that always equilibrates the relative surplus population, or industrial reserve army, to the extent and energy of accumulation, this law rivets the labourer to capital more firmly than the wedges of Vulcan

72 Reynolds 1951, p. 246.

did Prometheus to the rock. It establishes an accumulation of misery corresponding with accumulation of capital.⁷³

Of course, given this very different analysis of the laws of the capitalist labour market, Marx also had a very different view of the role of trade unions and class struggle. Within this setting, the economic and political organisation of the working class could hardly be seen as 'suboptimal', irrational, or counterproductive. Quite the contrary, worker organisation and resistance were absolutely essential in order to guarantee that capital would not use its monopoly of the means of production to reduce the working class to subhuman conditions.⁷⁴

During the initial stages of modern industry in England from 1780 to the 1860s, we have already seen what becomes of the working class when capital truly has a free rein within the labour market. In the midst of unprecedented leaps in the productivity of labour, wages and working conditions deteriorated so severely that the state had to intervene in order to place certain minimal restrictions on the length of the work day and child labour.⁷⁵ Thus, if there is any merit at all to the neoclassical claim which suggests that increases in the productivity of labour will automatically raise the standard of living of the labourer, it can certainly not be made for the period when capital truly had an unfettered rein in the labour market. In fact, there is substantial evidence indicating that real wages did not begin to rise significantly until the trade union movement became effectively organised in the second half of the nineteenth century. Before this period, real wage rates were continually forced down to bare subsistence, and often below it.⁷⁶

Also contrary to neoclassical theory, *Capital* contains a number of striking passages from both state inspectors and factory owners which clearly show that the heralded forces of capitalist competition were anything but the guardians of labour. It was often this very competition that compelled many individual capitalists to exploit labour to degrees that even they could not easily justify. For example, a Children's Employment Commission Report of 1863 states that 'in Birmingham there is so much competition of masters one against another,

73 Marx 1967a, p. 645.

74 Marx 1983, 1974, 1970 and 1967a.

75 During this period Marx argued that 'Après moi le deluge!' was the 'watchword of every capitalist nation. Hence capital is reckless of the health or length of life of the labourer, unless under compulsion from society' (1967a, p. 269). For similar accounts of the abominable conditions of the English working class at this time, see Engels 1844; Hobsbawm 1969; Hill 1969; and Thompson 1968.

76 Emmanuel 1972.

that many are obliged to do things as employers that they would otherwise be ashamed of'.⁷⁷ In other passages Marx also notes that periods of enhanced capitalist competition during downturns in the industrial cycle often pushed the wage rate below the value of labour power.⁷⁸ Thus, for Marx, real capitalist competition (as opposed to 'perfect' competition) clearly had a very different role to play within the labour market. As he noted a number of times, 'free competition' merely 'brings out the inherent laws of capitalist production, in the shape of external coercive laws having power over individual capitalists'.⁷⁹

Within this far more realistic assessment of the dynamics of competition and accumulation within the aggregate labour market, class struggle and the organisation of trade unions become an absolute necessity not because of 'imperfections' in the capital and/or labour markets, but because of the essential dynamics of competitive capitalism. Or, to put it another way, *labour suffers not because the laws of competition and accumulation are being inhibited or restricted, but because these laws work far too well in the service of capital.*

Once worker resistance and state intervention have finally managed to place certain minimal limits on some of the worst abuses of capital, Marx also repeatedly warned that it would be naive to conclude that the necessity for class struggle is thereby eliminated or even slightly diminished. For, as soon as workers let down their guard, any gains that they may have achieved through years of past struggle would be placed at risk.

Unlike all other commodities where the continual deviations of the market price above and below the regulating price will tend to ensure that these products will generally be sold at their true value (or price of production), labour power must contend with a reserve army even during periods of rapid growth. Thus, while downturns may certainly cause wage rates to fall *below* the value of labour power, wage rates will not automatically rise above it during upturns. Given these unique dynamics within the labour market, workers must therefore repeatedly struggle just to maintain the customary value of their labour power over the industrial cycle.

During the phase of sinking market prices and the phases of crisis and stagnation, the working man, if not thrown out of employment altogether, is sure to have his wages lowered ... If during the phases of prosperity, when extra profits are made, he did not battle for a rise of wages, he would,

⁷⁷ Cited in Marx 1967a, p. 453.

⁷⁸ See Marx 1967a, pp. 270, 453, and 599. See also Marx 1967c, p. 235.

⁷⁹ Marx 1967a, p. 270. See also Marx 1973, pp. 649–52.

taking the average of one industrial cycle, not even receive his *average wages* or the *value* of his labour.⁸⁰

Of course, if workers eventually hope to *increase* their real wage level as labour productivity rises, they will have to wage an even more determined struggle. Once wages rise substantially above the minimum (physical) subsistence level, workers can no longer rely on the state to intervene in order to ensure that an adequate supply of exploitable labour will continually be reproduced. Quite the contrary, in times like the current period when the labour movement is extremely weak and capital has ready access to low-wage reserves around the globe, US workers are unfortunately discovering that the social determinations of the minimally acceptable standard of living are quite flexible *in the downward direction*. They are also discovering that the state can be quite willing to encourage this decline.

As Mishel and Frankel have pointed out, the past decade has resulted in a serious deterioration in virtually all aspects of working class life. Since 1980, average hourly wages have fallen more than 9 percent and hourly benefits have fallen by almost 14 percent.⁸¹ Furthermore, as a result of cutbacks in government assistance, the erosion of the real value of the minimum wage, and the unprecedented growth of low-wage jobs, a rising fraction of the workforce is now earning poverty-level wages [increasing from 25.7 percent in 1979 to 31.5 percent in 1987].⁸² Finally, we have also witnessed the re-emergence of the dynamics of absolute surplus value as increasing numbers of workers are now working longer hours, and more family members are entering the labour force in order to make ends meet.

Contrary to neoclassical theory, this considerable decline in the living standards of the working class has taken place despite continued increases in productivity.⁸³ As noted in the Introduction, it has also occurred while the salaries

80 Marx 1970, p. 223. Although some Marxist writers (Rowthorn 1980a) have suggested that wages tend to rise automatically during upturns, Marx clearly argued that workers must fight for these increases. Once we understand that the reserve army continues to keep the 'pretensions of the active army in check' even during periods of rapid accumulation, this is certainly a reasonable conclusion (Marx 1967a, p. 639). For a similar interpretation of Marx, see Mandel 1977, p. 67.

81 Mishel and Frankel 1991, p. 1.

82 Mishel and Frankel 1991, p. 69.

83 As Mishel and Frankel point out, 'Slow productivity growth can only partly explain the slow wage growth of the 1980s. After all, compared to the 1970s, productivity grew slightly faster but real wages fell faster in the 1980s' (1991, p. 6). [In the afterword to this new edi-

of CEOs went up by 19 percent and the wealthiest one percent of the population saw their incomes grow by 74 percent!⁸⁴ Thus, from this writer's standpoint, Marx's claim that 'the periodical resistance on the part of the working men ... is inseparable from the wages system' still retains a great deal of merit.⁸⁵

Capitalist Accumulation and the Limits to Rising Wage Rates

Once we have recognised that class struggle is a necessary part of the wage system, we must also inquire into the limits of this struggle. Consequently, we finally arrive at our original question concerning the limits to rising wage rates within the dynamics of capitalist accumulation. And, now that we have carefully developed our analysis of the underlying dynamics of the aggregate labour market, we are finally ready to address it.

It should be no surprise that the critical question of what workers can potentially accomplish within the confines of Marx's laws of capitalist accumulation is a highly controversial issue. It is somewhat curious, however, that two of the most common interpretations of Marx's argument are diametrically opposed to one another.

As noted earlier, some writers have argued that Marx's analysis of the reserve army clearly implies that Marx subscribed to an iron law of wages whereby real wage levels would be continually reduced to the physical subsistence level *despite worker resistance*.⁸⁶ Yet although this essentially classical argument may have been a component of Marx's earliest discussions concerning the wage level, a number of Marxist scholars have clearly shown that there is very little evidence of an iron law of wages in Marx's later writings.⁸⁷ Although Marx did continue to argue that the dynamics of the labour market would repeatedly tip the balance of power against the worker, he eventually realised that well-organised workers would be able to achieve certain long-run gains in their

tion, we will discuss how all of the above dynamics have unfortunately continued to wreak havoc on the working class as the policies of neoliberalism have been pursued by both Democratic and Republican administrations and the labour movement has continued to grow weaker].

84 Mishel and Frankel 1991, pp. 25, 119.

85 Marx 1970, p. 224.

86 Meek 1967 and Hollander 1984.

87 See Rosdolsky 1977; Mandel 1977, 1971; Rowthorn 1980a; Bottomore 1983, pp. 362–3; and Draper 1978. For a useful and largely neutral discussion of this debate, see Cottrell and Darity 1988.

standard of living. Thus, although Marx clearly suggested that workers would continue to become worse off relative to the wealth that they create for the capitalist, there is no necessary law of *absolute* impoverishment.⁸⁸

At the opposite end of this controversy are the various proponents of the profit-squeeze argument who have generally attempted to suggest that the class struggle is the overriding determinant of movements in the wage level, and not the forces of capitalist accumulation.⁸⁹ Thus, the only real constraint on rising wage rates is the ultimate limit of capitalist crisis.

Although some Marxist writers have suggested that 'the theory of the profit-squeeze has the considerable merit of bringing the class struggle into the very heart of a theory of accumulation and crisis',⁹⁰ I will argue throughout this work that it is precisely *how* the class struggle is 'brought into' the analysis of accumulation and competition that makes all the difference. Contrary to profit-squeeze arguments, in the remainder of this section we will show that while class struggle is certainly fundamental to movements in the wage rate, these movements are nevertheless limited and regulated by the dynamics of capitalist accumulation.

We have already developed a number of arguments which strongly tend to support Marx's claim that 'the very nature of accumulation excludes every diminution in the degree of exploitation of labour, and every rise in the price of labour, which could seriously imperil the continual reproduction ... of the capitalist relation'.⁹¹ One of the most central factors here is the constant downward pressure on the wage level that is exerted by the ever-present reserve army. It is also important to remember that the same process of mechanisation which generates both the rising organic composition and the reserve army also tends to lower the level of skill and training required by the average worker. Thus, in addition to losing ground against capital within the labour process, employed workers are also increasingly besieged by competition from workers within the reserve army.

In order to complete our discussion of the limits to rising wage rates; however, there is one key factor that has not yet been discussed in sufficient detail. This is capital's relentless tendency to increase the productivity of labour through the very same process of mechanisation.

88 See Bottomore 1983, pp. 362–3.

89 In one of the earliest statements of this position, David Gordon suggests that 'the dynamics of class division and class conflict have an overriding influence on the determination of income and individual productivity' (see Gordon 1972, p. 95).

90 Wright 1977, p. 217.

91 Marx 1967a, p. 621.

As noted earlier, when increases in productivity take place within industries that are either directly or indirectly connected to the production of workers' means of subsistence, this provides an important limited space for real wages to rise without forcing the value of labour power to rise. In fact, as long as real wages rise more slowly than labour productivity, the value of labour power will continue to fall and the rate of surplus value will continue to rise.⁹² Once labour begins to effectively organise, it is therefore possible for workers to achieve certain limited increases in their real wages without seriously impinging on capitalist profitability.

Contrary to any iron law of wages, Marx therefore argued that periods of normal accumulation would generally tend to be accompanied by rising capital intensity and a sizable reserve army, as well as by rising productivity, and the potential for rising real wages. In general, however, Marx remained quite insistent that real wages would not rise as rapidly as productivity. Hence, normal accumulation would also mean a *rising* rate of surplus value despite effective worker efforts to raise their real wage level. '[H]and in hand with the increasing productivity of labour, goes as we have seen, the cheapening of the labourer, therefore a higher rate of surplus value even when the real wages are rising. The latter never rise proportionally to the productive power of labour'.⁹³ The reasons for Marx's argument should now be clear. Even in periods of rapid accumulation and relatively high labour demand, there is still a sizable number of unemployed workers who are in serious need of employment. Thus, in order for workers to raise their wage rates at all, they must constantly maintain a certain level of effective organisation. To push wage rates beyond the limits of productivity growth and hence capitalist profitability, however, workers would require a qualitative leap in their degree of organisation and consciousness. As we argued earlier, in the exceptional case where workers do somehow manage to achieve the strength to begin to push wage rates beyond the normal limits of capitalist accumulation, the tempo of accumulation will decelerate and the mechanisation of production will tend to accelerate. And of course, both of these tendencies will tend to increase the size of the reserve army. Thus, not only would actively employed workers have to develop an exceptionally high degree of solidarity with those who continue to be unemployed, but they would have to maintain that solidarity and their militant demands for ever higher wage rates in the face of the *increasing threat of layoffs*.⁹⁴

92 Marx 1967a, p. 523.

93 Marx 1967a, p. 604. See also Marx 1967c, p. 240.

94 In some wage-squeeze explanations for the secular crisis beginning in the late 1960s, it

Long before the system is brought to the point of serious crisis by rising wage rates, it is quite likely that the dynamics of capitalist accumulation will have already placed a 'check' on the rise in wage rates.⁹⁵ Even in the case of the most militant unions, wage demands will be painfully brought back into line as the laws of accumulation begin to be asserted in an increasingly direct manner. Finally, although we cannot develop this point here, it is important to recognise that movements in the wage rates of any particular industry will also be fundamentally constrained by the conditions of capitalist competition.

In response to this argument, class struggle theorists may nevertheless argue that it is precisely during these moments when workers have achieved such a high level of organisation and consciousness that they will also be ready to step outside of the descending limits of the system by seizing control of the means of production. For reasons that have already been stated, however, we suggest that this is also an unlikely scenario. Not only would it become increasingly difficult to maintain the militant demand for higher wages in the face of rising layoffs, but within the above scenario, capitalist arguments for wage concessions would become quite persuasive. Indeed, within this profit-squeeze scenario, excessive increases in wage rates supposedly have precipitated the deepening economic crisis in the first place.

It is much more plausible to argue that workers will achieve a clearly anti-capitalist consciousness (as opposed to merely trade union consciousness) in a period when the accumulation process has been brought to crisis as a res-

is argued that falling levels of unemployment and a rising 'social wage' (i.e. unemployment insurance, AFDC, etc.) greatly reduced the 'costs of being fired' (see Gordon, Bowles and Weisskopf 1979, and Schor 1987). Thus, with the reserve army effect sharply weakened, workers were supposedly emboldened to push the system into crisis. Indeed, these writers argue that workers not only forced wage rates up, but they also firmly resisted capital's efforts to increase productivity. In addition to providing very weak evidence for this crisis-provoking, widespread labour revolt in the late 1960s, these arguments grossly underestimate the real economic and psychological costs of losing one's job – particularly within this country. Like neoclassical economists, they sidestep the considerable difficulties of finding another job after a worker is fired for 'insubordination' and other forms of worker militancy. They also ignore the very real possibility of losing one's mortgaged home and financed car, as well as one's pension and vacation benefits, seniority rights, and health insurance. Finally, as we will see at the conclusion of this chapter, the evidence suggesting that wages rose more rapidly than productivity is also quite weak. For very different accounts of the short-lived worker resistance in the late 1960s, see Davis 1986 and Moody 1988.

95 For excellent critiques of the profit-squeeze argument as a theory of general capitalist crisis, see Yaffe 1973; Shaikh 1978; and Weeks 1981.

ult of its own internal contradictions. Within this situation of general crisis, workers will be facing the hardships of unemployment not because wages were pushed 'too high', but because the maximisation of profitability has met its own internal limits due to the rising organic composition of capital.⁹⁶

In this case, capital's calls for the moderation of working class demands will have very little rationale and are far more likely to be resisted. As the crisis eventually unfolds and capital begins to mount an all-out attack on the wages and conditions of the working class in order to restore profitability, extremely militant class struggle will be required just to allow workers to hold onto the modest gains that have been achieved in the past. It is within this scenario that workers will truly have very little to lose by stepping outside of the limits of the system. On the contrary, they will have everything to gain. For Marx, it was clearly this type of historical conjuncture that promised to be the most pregnant with revolutionary possibilities.⁹⁷

Empirical Evidence for Limits to Rising Wage Rates

Even the most powerful logical arguments must eventually be able to explain the real underlying patterns in concrete reality. Here, once again, Marx's arguments appear to be extremely useful. Although some writers have argued that empirical evidence suggests that a wage-profit-squeeze is the underlying cause of the prolonged capitalist crisis that began in the late 1960s,⁹⁸ other empirical investigations have strongly supported Marx's general argument. In order to confirm Marx's argument, however, Keynesian income accounts must be systematically transformed so that they will more closely correspond to Marxian value categories.

Once careful attention is paid to the critical distinction between productive and unproductive labour, and the Marxian categories of surplus value, constant capital, and variable capital are properly measured at the aggregate level, it can be shown that the rate of surplus value has actually been rising throughout

96 See Marx 1967c, part 3.

97 Marx and Engels 1970, p. 45.

98 For the original profit-squeeze argument that developed within the context of Great Britain, see Glyn and Sutcliffe 1972. The most detailed argument for the US crisis in the 1970s has been developed by Bowles, Gordon and Weisskopf 1983. See also Weisskopf 1979; Schor 1987; and Bluestone and Harrison 1990a. Panitch and Gindin 2012 have recently resurrected a very similar wage-profit squeeze argument as a key part of their explanation for the profitability crisis in 1970s.

most of the post-World War II period.⁹⁹ Shaikh's empirical work suggests that productivity consistently rose faster than the real wages of productive workers throughout the postwar period between 1947 and 1985. Using the ratio of productivity to the real wages of productive workers as an index of Marx's rate of surplus value, he also shows that this index rises by 46 percent. Consistent with Marx's argument concerning the mechanisation of the production process, Shaikh further shows that the ratio of capital to production workers' wages (i.e. Marx's 'value composition of capital') rose by 103 percent over the same period. Thus, just as Marx's tendency of the falling rate of profit predicts, Shaikh concludes that the US profitability crisis was primarily caused by a long-run rise in the organic composition of capital – not rising wage rates.

Mosley's study arrives at similar conclusions. Although Mosley's calculations suggest that the rate of surplus value fell slightly between 1965 and 1982, he estimates that the overall increase in the rate of surplus value between 1947 and 1982 was approximately 35 percent. Mosley also calculates that there was a 46 percent increase in the organic composition of capital over this same period. Thus, he too finds strong support for Marx's original arguments. While debate over the empirical evidence for all of these phenomena is bound to continue, it is certainly fair to say that Marx's arguments cannot be easily dismissed. Indeed, when one considers all of Marx's long-run predictions regarding the concentration and centralisation of capital, the mechanisation and deskilling of the labour process, the constant reproduction of a reserve army of labour, the falling rate of profit, and the necessity of periodic general crises, his analysis of the 'laws of motion' of the capitalist economy is really quite impressive.

99 Shaikh 1987 and Mosley 1987. See also Shaikh and Tonak 1994.

Wage Differentials and the Aggregate Labour Market

In the previous chapter, we abstracted from both the differentiation of capital and the differentiation of labour in order to derive the central tendencies of capitalist accumulation within the aggregate labour market. By following Marx's procedure in the first volume of *Capital*, we were able to discover how the dynamics of capitalist accumulation continually tend to reproduce a reserve army of labour. We also saw how movements in the real wage level generally tend to be limited by very particular movements in the productivity of labour (i.e. those directly and indirectly associated with the production of workers' means of subsistence).

In sharp contrast to the neoclassical method of abstraction, the purpose of this highest level of abstraction was not to set up an idealised set of laws or properties that will only operate effectively under extremely limited and equally idealised sets of conditions. Rather, it was necessary to reveal our first set of *real* underlying forces that will continue to channel and regulate the movements of other, more concrete determinants of wage rates as they are subsequently introduced. Moreover, our success in developing a systematic analysis of inter- and intra-industry wage differentials will partly depend on our ability to keep track of these regulating dynamics as they continue to work their effects in an increasingly complex manner at each successive stage of analysis.

Now that we have explained how the laws of accumulation will tend to limit movements in the wage *level*, we are ready to begin our analysis of wage *differentials*. Although most writers have assumed that Marx's analysis of the equalisation of wage rates among comparable workers is very similar to neo-classical theory, we will show that a careful development of Marx's discussion of competitive wage determination reveals something quite different. Once Marx's distinctive analysis of both the aggregate labour market and capitalist competition has been examined, it will become clear that Marx's discussion of wage equalisation allows for the development of numerous patterns of substantial and persistent wage differentials within clearly defined limits. Thus, as in our previous discussion of the regulation of the general wage level, the key to understanding the dynamics of wage differentiation will once again require the notion of *systematic variation within limits*.

This chapter will continue to concentrate on Marx's dynamic analysis of the aggregate labour market in order to show that the constant presence of underemployment has profound consequences for labour market competition, labour mobility, and the general dynamics of wage equalisation. Although most radical and/or Marxist writers have incorporated certain elements of Marx's analysis of the reserve army within their own discussions of the aggregate labour market, few have recognized the critical importance of the reserve army for the development of inter- and intra-industry wage differentials. The main contribution of this chapter will therefore be to show that important foundations for differential wage phenomena can actually be developed even at this fairly abstract level of analysis. Chapter 5 will then present the more concrete discussion of capitalist competition and the continual reproduction of differential profit rates.

Capitalism's Active and Reserve Armies: Differentiation and 'Segmentation' in Their Most Basic Forms

Before we discuss the more particular problem of wage differentials among homogeneous workers, it is essential to recognise that Marx's analysis of the complex interaction between the active labour army and the various sectors of the relative surplus population establishes the basis for a far more general process of differentiation that affects virtually all conditions of working class life. It will also be important to show that this general process of differentiation is an integral part of Marx's general law of accumulation, which is developed in chapter 25 of *Capital*.

Abstracting from the short-run employment effects of the industrial cycle, Marx utilises the degree of access to stable, full-time employment as the primary criterion for defining four groups of workers who make up the 'relative surplus population' [or, the reserve army of labour].¹ The first sector of the reserve army is the *floating* sector, which is mainly attached to 'the centres of modern industry'. Although this group is not clearly defined by Marx, these workers appear to act as a reserve labour force for relatively stable modern industries that must nevertheless respond to constant changes in market conditions by adjusting their output and employment levels accordingly. The attachment of these workers to the active labour army is therefore characterised by constantly interrupted periods of employment as they are continually

1 Marx 1967a, pp. 640–4.

‘repelled and attracted’. In Marx’s time, this sector also included large numbers of young men who were systematically discharged and replaced when they reached the ‘age of maturity’.²

The second component of the reserve army is provided by the *latent* surplus population, which is ‘constantly on the point of passing over into an urban or manufacturing proletariat, and on the look out for circumstances favorable to this transformation’.³ In the 1800s, this latent source of surplus labour was mainly provided by the continuing expulsion of the agricultural population under the weight of modern industry. For the agricultural labourer who was most directly threatened by the actual or potential unleashing of these latent reserves, wage rates were generally reduced to the lowest possible levels.

The third category of the relative surplus population is not on the verge of entering the labour force, nor is it primarily defined by high degrees of mobility between various modern industries. Rather, it is the *stagnant* sector, which ‘recruits itself constantly from the supernumerary forces of modern industry and agriculture’ and especially from those ‘decaying branches of industry’ that are being gradually phased out by mechanization.⁴ Like the floating sector, here again we find a group of workers who only periodically form part of the active labour army, but with much less regularity and under far less advantageous circumstances. Thus, Marx notes that these unfortunate workers:

[F]urnish to capital an inexhaustible reservoir of disposable labour power. Its conditions of life sink below the average normal level of the working class. This makes it at once the broad basis of special branches of capitalist exploitation. It is characterised by maximum of working-time, and minimum of wages.⁵

Finally, there is the ‘lowest sediment of the relative surplus population’, which dwells in the sphere of *pauperism*. This group includes both those who are able to work but who are only called upon during the height of the industrial cycle, and those who are no longer able to work on a steady basis.⁶ Although we

2 Marx 1967a, p. 641.

3 Marx 1967a, p. 642.

4 Marx 1967a, p. 643.

5 Ibid.

6 In Marx’s time, as in our own, this latter group of disabled workers included the ‘demoralised and ragged who succumb to their incapacity for adaption due to the division of labour; people who have passed the normal age of the labourer, [and] the victims of industry, whose number increases with the increase of dangerous machinery’ (Marx 1967a, p. 643).

cannot examine these sectors of the surplus population in any detail here, it is important to recognise that Marx's analysis of these different components of the unemployed is quite distinct from modern neoclassical discussions of frictional and structural unemployment. Unlike neoclassical theory, Marx is not primarily describing groups of workers who are *temporarily* passing through periods of heightened discomfort and instability before they go back into the workforce armed with the appropriate new skills. Indeed, he argues quite adamantly against the apologists of his time who conveniently assumed that these displaced workers were only momentarily placed in a disadvantaged position.⁷

Within Marx's more realistic assessment of the plight of the unemployed, workers who lose their jobs due to mechanisation or the permanent decline of their original sectors of employment are often placed in very difficult circumstances for a large part of the rest of their working lives. This is particularly true for older, skilled workers who are often thrown into competition with younger workers who can work harder and adapt more easily to the ever changing conditions of modern factory work.

Regardless of age and skill levels, however, all of these displaced workers must attempt to re-establish their connection to the active army in a labour market that is generally characterised by an excess supply of labour even during periods of rapid growth. As a result, the competition for scarce jobs can often become quite fierce, and even the most skilled and energetic among the unemployed may find it difficult to re-establish themselves in the active labour army.

For Marx, the 'real facts' that were often 'travestied by the optimism of economists' were the following:

The labourers that are thrown out of work in any branch of industry, can no doubt seek for employment in some other branch ... [But] Crippled as they are by division of labour, these poor devils are worth so little outside their old trade, that they cannot find admission into any industries, except a few of inferior kind, that are over-supplied with underpaid workmen. Further, every branch of industry attracts each year a new stream of men, who furnish a contingent from which to fill up vacancies, and to draw a supply for expansion.⁸

7 Marx 1967a, chapter 5, section 6.

8 Marx 1967a, p. 441.

From the previous description of the 'stagnant' sectors of the reserve army, we should also remember that many of these displaced workers often form the basis for 'special branches of capitalist exploitation'. Thus, even when these workers do have the good fortune to find other employment, it is frequently with wages and conditions that are significantly inferior to their previous jobs.

Within the past three decades, this point has taken on special significance as laid-off workers who have been expelled from key manufacturing sectors in the United States (auto, steel, etc.) are increasingly being forced to accept low-wage jobs in the service sector. According to a 1986 study by Bluestone and Harrison, 40 percent of the approximately 11.5 million industrial workers displaced by plant closings between 1979 and 1984 had not yet found new jobs. Among those who had found employment, two-thirds were working at substantially lower wages.⁹ Similarly, Fernández Kelly's study of industrial restructuring in southern California argues that the layoffs of more than 16,000 manufacturing workers in the late 1970s and early 1980s provided a key basis for the subsequent expansion of low-wage employment in the high-tech electronics industry in and around Los Angeles.¹⁰

Since the 1970s, several writers have attempted to investigate how Marx's analysis of the reserve army may provide an important foundation for understanding the modern processes of segmentation within the U.S. and Great Britain. Some of the most interesting work has attempted to utilise the categories of latent, floating, and stagnant sectors of the reserve army to analyse the particular conditions surrounding the entrance of women and African-Americans into the labour force.¹¹ As noted in the previous chapter, Braverman and Humphries have done important work arguing that increasing numbers of women are gradually being forced from the latent to the floating sectors of the reserve army.¹² Friedman has also developed interesting arguments suggesting that we need to distinguish between Marx's general reserve army and various 'reserve labour forces' that service particular industries.¹³ Finally, Fernández

9 The first 15 years of our new century have witnessed even more serious patterns of chronic underemployment and the replacement of high wage manufacturing jobs with low wage service sector jobs. See Mishel et al. 2012, Chapter 5.

10 Kelly 1989.

11 See Humphries 1977, 1983; Simeral 1978; Beechey 1978; Rubery 1978, 1988; Rosenberg 1977, 1981; Darity 1982; Friedman 1984; and Mason 1993. An early and quite excellent analysis of how African-American workers were historically forced to play the role of a reserve army of labour can be found in Harold Baron 1971.

12 Braverman 1974 and Humphries 1983.

13 Friedman 1984.

Kelly and Sassen have done very useful work attempting to analyse the growing role of low-wage, immigrant labour in particular US labour markets.¹⁴ Their studies of low-wage labour markets in Los Angeles and New York City clearly show that some of the most horrendous consequences of Marx's reserve army are once again reappearing in the United States as subcontracting, industrial homework, and sweatshop conditions are spreading within growing sectors of the electronics and garment industries.¹⁵

Far more work must be done in order to extend and deepen Marx's analysis of the various components of the reserve army so that this framework can be more successfully utilised within the contemporary period. Nonetheless, it is important to note that Marx's general argument for the ongoing reproduction of these differentiated groups of workers has two critical implications for his analysis of competition and differentiation within the working class that have often been ignored by radical segmentationists. First, given that this process of differentiation is an integral part of Marx's *general law of capitalist accumulation*, it must also be considered when attempting to assess the current relevancy of Marx's argument concerning capitalism's long-run tendency to homogenise the working class. Second, the presence of these groups of workers who are in various degrees of desperation can often create an intense degree of competition and antagonism between employed and unemployed workers that is not merely generated by capital's attempts to divide and conquer the working class. Thus, as painful as this conclusion may be, we must begin to assess the extent to which employed workers themselves have often played an important role in the sustained differentiation of the working class as they attempt to protect themselves from this intense competition within the labour market.

Before examining the role of workers in the segmentation process in more detail, a few comments on Marx's analysis of the homogenisation of the working class are necessary. Like most of his arguments concerning the long-run tendencies of the capitalist mode of production, this argument is far more complex than has often been assumed.¹⁶ Although Marx is often accused of

14 Kelly 1989 and Sassen 1989.

15 In this new edition, we would also have to recognize the notorious example of the US meat-packing industry which has systematically transformed a once highly unionised 'primary labour market' into a shameless example of the super-exploitation of African-American and immigrant labour. Hopefully the recent union victory at the Smithfield plant in North Carolina will mark the beginning of a new trend. See Bacon 2008.

16 Marx's argument for the homogenisation of the working class is formulated in its most bold and least developed terms in early political tracts such as the *Communist Manifesto*:

suggesting that capitalist development must inexorably lead to a perfectly linear descent to ever lower skill levels, a careful reading of chapter 15 of *Capital* shows that he clearly did not rule out episodes of *rising* skill levels or the development of new processes of skill differentiation. He also recognised that new technologies may sometimes raise the skills of certain groups of specialised workers while they simultaneously lower the skills of many others.

Thus, within chapter 15, Marx notes that the development of modern industry not only creates a vast army of machine operators and attendants, but that it also generates the need for a numerically unimportant 'superior class of workmen' who are required to 'look after the whole of the machinery and repair it from time to time'.¹⁷ Marx's key point, however, is that once a new technology is finally rationalised in order to prepare it for mass production, it *will* generally have the long-run effect of deskilling most workers who are forced to utilise it. As we argued in the previous chapter, the development of the capitalist labour process is not a socially arbitrary process based on relative factor prices. On the contrary, mechanisation and deskilling are the logical outcome of capital's need to exploit living labour and the necessary antagonisms which flow from that exploitation.¹⁸

Of greater significance for our present purposes, the above discussion of the various sectors within the reserve army clearly shows that Marx's analysis of the general law of capitalist accumulation is also far more complex than is often assumed. In fact, out of the very same processes of accumulation and mechanisation that will tend to deskill workers in the long-run, there comes a profound process of *continual re-differentiation within these narrowing*

'The various interests and conditions of life within the ranks of the proletariat are more and more equalized, in proportion as machinery obliterates all distinctions of labour, and nearly everywhere reduces wages to the same low level' (Marx and Engels 1970, p. 43).

17 Marx 1967a, p. 420.

18 Although Braverman has also been accused of arguing for a linear process of deskilling, his analysis of the modern effects of mechanisation and computerisation shows how skill levels are sometimes raised in the short-run before capital has developed an effective way to rationalise these new processes. But as computers were eventually introduced on a mass scale, Braverman also shows how highly skilled computer programmers were increasingly replaced by less skilled programmers who required only a few weeks training and who were accompanied by a vast array of keypunch operators (Braverman 1974, chapter 15). Since Braverman wrote his book, we have seen this deskilling process continue as computer programmers are being further displaced by computer operators who can now run sophisticated canned programmes with only a few days of training. Indeed, even the skills required for computer repair are gradually being diluted with the introduction of automatic diagnostic tests and modular replacement parts.

limits. What results is an increasingly deskilled workforce and a constantly re-differentiated working class. This is a working class that necessarily includes very different groups of workers who are not only being thrown from 'pillar to post' as their connections to stable employment are repeatedly disrupted, but who are also being forced to re-establish those connections under very different sets of circumstances.¹⁹

Thus, contrary to the arguments of many segmentationists, the modern rediscovery of these continually reproduced pools of chronically low paid workers does not necessarily require the construction of a qualitatively 'new stage of accumulation' within the era of 'monopoly capital'.²⁰ Nor does it require us to reject the validity of Marx's extremely important argument concerning capitalism's long-run tendency to homogenise the working class in terms of skill levels.

Before we have even begun to develop our argument concerning capitalist competition and the differentiation of capitals, we can already begin to see that many aspects of 'segmentation' within the modern working class may merely be the most modern expressions of the contradictory aspects of the general law of capitalist accumulation. Viewing the modern process of segmentation within this light would also help to explain why many of the segmentationists' descriptions of the modern 'secondary labour market' curiously bear such a striking resemblance to Marx's discussions of the floating and stagnant sectors of the reserve army in the nineteenth century.²¹

The Role of Workers in the Segmentation Process

Once we have established that capitalist accumulation both deskills labour and generates a sizable reserve army, we must also recognise that actively employed workers who are attempting to protect (and improve) their standard of living

19 Bryan Palmer (2014) makes a similar set of points regarding the historical processes of working class formation (and constant re-differentiation) to argue against the more recent tendency by Guy Standing (2011) and others to see 'precariousness' as a fundamentally new basis for working class fragmentation which once again undermines Marx's arguments regarding the central role of the 'proletariat'. More will be said about the 'precariat' in the afterward to this new edition.

20 As noted in chapter 2, the main proponents of this argument are Gordon, Edwards and Reich 1982.

21 For an even earlier description of these pools of chronically low-paid workers, see J.S. Mill 1848.

must conduct their struggle against capital on two main fronts. In addition to resisting capital's attempts to deskil and intensify their labour at the point of production, workers must also find ways to protect themselves from capital's ready reserves of unemployed workers within the aggregate labour market.

As labour movements have developed within all capitalist economies (but particularly within the United States), one of the most vexing problems has been that on both of these fronts, workers' immediate short-run attempts to protect themselves have often had very negative long-run effects on workers who have been excluded from these efforts. Thus, not only have these short-run actions frequently led to further differentiation within the working class, but they have often had the unintended effect of undermining working class solidarity and organisation in the long-run. Ultimately, both the short- and long-run effects of these struggles have largely depended on the particular methods that organised workers have developed in order to protect themselves both inside and outside of the workplace.

In the United States, organised workers have historically moved in two very different directions. On one hand, 'pure and simple' trade unions such as the old AFL craft unions have tended to develop *exclusive* and highly undemocratic forms of organisation that have often led to very harmful forms of segmentation. Indeed, in their negotiations with capital, these business unions have frequently managed to secure their privileged status within the working class in exchange for maintaining both tight control over their own memberships and a firm commitment *not to organise* wider groups of unskilled workers. At the other end of the spectrum, labour organisations such as the Knights of Labor in the 1880s and the CIO in the 1930s tended to pursue far more *inclusive* and democratic strategies that attempted to minimise the possibilities for segmentation by organising workers as widely as possible. Within these far more solidaristic forms of organisation, workers achieve their power primarily from their ability to disrupt production on the shop floor and withdraw their labour power during strikes. Thus, strong rank-and-file participation has always been an essential element of their success. Moreover, the more inclusive and class-wide these organisations become, the more effective they are in confronting capital.

In order to more clearly illustrate how these divergent organisational paths can have quite different effects on the degree of segmentation within the working class, the remainder of this section will briefly present several key examples of how unions have historically developed different kinds of strategies for defending themselves inside and outside of their own workplaces.

Within the workplace, the harmful effects of mechanisation and deskilling have often been partially offset by unions that have managed to force employers to continue to recognise highly structured job classification systems and

training programmes that are no longer required by capital. When these classification systems are successfully transformed by democratic unions that force management to adhere to equitable job bidding procedures based on plant-wide seniority rights, they have often been an effective way to block capital's increasing dominance on the shop floor. As Rubery points out:

[T]he existence of a structured labour force, where jobs are strictly defined, and workers are not interchangeable, provides a bargaining base for labour against management's attempts to increase productivity and introduce new technology. Changes in job ladders, skill demarcations and the pace of work become areas for bargaining, whereas a homogenous labour force, interchangeable in function, would lay itself open not only to competition from the external market but also to further declines in workers' control of production and a continuous undermining of bargaining power.²²

To the extent that wage differentials are restricted to those justified by real skill differentials and capital's efforts to discriminate are effectively blocked by a democratic seniority system, this inclusive method of worker differentiation on the shop floor can be a valuable method of worker control with positive short- and long-run results.

Within a different context, however, these classification systems can also have very negative consequences. To the extent that unions become undemocratic, unwarranted wage differentials begin to appear, and various forms of worker and employer discrimination begin to proliferate, these structures will tend to degenerate into mechanisms for protecting privileged sectors at the top of the job ladder at the expense of those at the bottom. Moreover, these policies will not only harm those workers who are denied access to better

22 Rubery 1978, p. 22. Within labour market segmentation theory, elaborate job hierarchies are primarily assumed to be the result of capital's conscious attempts to divide and conquer the working class. Rubery was one of the first radical labour economists to criticise segmentationists for failing to recognise that the differentiation of labour through these rigid job classification systems is often the result of *labour's* defensive actions *against capital*. Another good way to see which side has ultimately been benefiting from many of these rigid classification systems is to witness the recent all-out attacks on these systems by US capital. See 'Work Rules Overtaking Pay as Key Labour Talk Issue', in *New York Times*, 26 October 1986. See also Slaughter 1983 and Katz 1986. [In the afterword of this new edition, I will discuss how capital's pursuit of 'flexibility' has now virtually spread to all sectors of the global economy].

jobs, but they will ultimately undermine the long-run organisation and solidarity of the union.²³

Outside of the workplace, worker efforts to shield themselves from competition from the reserve army are another potential source of sustained differentiation within the working class. If a sizable reserve army is constantly reproduced within the aggregate labour market, then the efforts of employed workers to ensure that they are not repeatedly thrown back into that reserve army may also have very negative effects on those workers who are currently unemployed. Indeed, the stabilisation of one group of workers within the active army can often lead to the stabilisation of other groups within the reserve army.

As a growing number of writers have recently suggested, we must finally begin to recognise that the efforts of employed workers to build shelters from competition within the labour market may play an important role in the segmentation process.²⁴ Moreover, if these shelters exclude certain groups of workers on the basis of race, gender, or ethnicity, they can have extremely harmful and very prolonged effects on those who have been excluded. Once again, however, these negative effects will largely depend on precisely how these shelters are being constructed and on how widely the working class is organised.²⁵

As Rubery and Wilkinson have noted, worker attempts to construct shelters from labour market competition go back as far as the development of craft unions themselves.²⁶ Thus, they are clearly not a new phenomenon unique to the era of 'monopoly capital'. As already suggested, within the United States this form of worker-generated segmentation developed some of its most ant-

23 Useful discussions of the long-run necessity for democratic procedures within unions that wish to remain effective can be found in Freeman and Medoff 1984 and Moody 1988. For a concrete example of how union-sanctioned job classification systems can sometimes exclude workers on the basis of race and gender, see Williams and Smith 1990.

24 See Bonacich 1972, 1980; Freedman 1976; Hartmann 1976; Rubery 1978; Friedman 1984; Darity and Williams 1985; Darity 1989; Botwinick 1988; Williams 1991; and Mason 1993.

25 In some of the earliest theoretical discussions of worker-generated segmentation, writers sometimes argued that the interests of unionised white males were necessarily and invariably opposed to the interests of female and black workers who were often excluded from their unions (Hartmann 1976 and Bonacich 1972). More recently, writers like Milkman (1980) have examined the historical record to show that unions have actually behaved very differently within varied historical contexts. Milkman has further shown that the type of union organisation (i.e. craft vs. industrial) has also played a critical role in determining how organised male workers have ultimately responded to the rights and concerns of female workers.

26 Rubery 1978 and Wilkinson 1981.

agonistic and negative forms in the early stages of the labour movement when AFL craft unions actually blocked the entrance of new labourers by controlling apprenticeship programmes. It is also well known that many of these craft unions tended to play (and still do play) a leading role in the practice of racial exclusion.²⁷ Similarly, many of the early union struggles to achieve a 'family wage' were often based on the attempt to control and limit the supply of female labour. Thus, as Humphries has correctly noted, while the British working class as a whole was able to achieve important gains in higher wage rates and the protection of the working class family, it often did so by 'reinforcing sex-based relations of domination and subordination'.²⁸

As modern mechanisation and deskilling began to force masses of unskilled workers into the industrial labour force, however, craft unions increasingly lost their ability to control labour supply in any form. Despite numerous short-sighted and highly divisive attempts by AFL unions to block the organisation of the unskilled, new industrial unions were eventually developed on a much broader basis.

Within these more modern forms of labour organisation that finally achieved some measure of stability in the 1930s, workers have not primarily attempted to block the entrance of new labourers into their trades. Rather, they have attempted to impose certain conditions of entry *on capital*. Thus, rather than hampering capital's efforts to hire additional workers, industrial unions have more appropriately tried to prevent capital from using these new workers to either replace those already employed or to undercut established wage rates.

In the United States, this type of industrial unionism achieved its strongest and most inclusive form with the development of the Congress of Industrial Organisation (CIO) in the 1930s. Due in part to the organisational needs of the times and in part to the key role of leftists and other militant activists, divisions between employed and unemployed, male and female, and black and white workers were significantly reduced.²⁹ The new industrial unions combined their efforts to organise within the shop with equally serious efforts to organise nationwide demonstrations to demand decent jobs and adequate social services for the unemployed. Moreover, these unions attempted to organise workers across a wide variety of industries and pursued a solidaristic wage policy which greatly reduced wage inequality between and within these industries. Finally, although CIO leaders clearly could have done more to fight discrimina-

27 See Herbert Hill 1968; Spero and Harris 1972; and Foner 1974.

28 Humphries 1977, p. 158. For useful discussions of the 'family wage' and other gender-related issues within the early AFL unions, see May 1987 and Milkman 1980. See also Foner 1982.

29 See Foner 1974; De Caux 1970; Davis 1986; and Moody 1988.

tion within their ranks, there is little question that 'CIO practice on race and sex discrimination was much more advanced than that of the AFL craft unions'.³⁰

Thus, with the potential for long-term segmentation significantly reduced, union organisation took its most progressive and most effective form in the 1930s and 1940s. A testament to the labour movement's success in bridging these divisive gaps was its ability to organise the most powerful unions in US history during a period when unemployment rates were extremely high.

Unfortunately, the political and economic organisation of the working class does not proceed in a neatly linear fashion toward ever higher levels of solidarity, class consciousness, and class-wide organisation. There are often serious setbacks as political and/or economic conditions change and capital regains the upper hand. It is also within these periods of retreat with weak organisation and weak leadership that unions are most likely to pursue short-run goals that attempt to maintain their declining memberships at the expense of those outside of the existing union structures. And, of course, these short-sighted, opportunistic tactics often have very negative long-run implications for the organisation of the working class as a whole.

As several trenchant analyses of the current crisis within the US labour movement have pointed out, one of the most critical periods of union retreat, which has continued to have very negative effects on labour today, actually took place in the late 1940s and 1950s. During this period, the vibrant social unionism of the original CIO was eventually replaced by a new form of business unionism that Mike Davis has appropriately termed 'an unholy amalgam of craft and industrial union principles'.³¹ Although space does not permit us to go into great detail here, several key factors laid the foundations for this unfortunate transformation.³²

30 Moody 1988, p. 23. As Moody has accurately pointed out, 'The practice of the CIO leadership in fighting race and sex discrimination was limited. It did not include any conception of affirmative action. Most important at the time, it did not include an activist policy of fighting discrimination within industry or even the union. The CIO leaders opposed the "hate strikes" of 1943, but they did not put the weight of the union hierarchy behind the promotion of blacks or women into the better jobs' (Moody 1988, p. 23). For a more detailed account of the CIO record on gender issues, see Milkman 1980 and Foner 1982. On the issue of racial discrimination and the CIO, see Foner 1974 and Meier and Rudwick 1979. More recent work on the positive role of the CP within the early CIO unions can be found in Stepan-Norris and Zeitlin, 1996 and 2002.

31 Davis 1986, p. 95.

32 Excellent discussions of these critical historical factors can be found in Davis 1986; Goldfield 1987; and Moody 1988.

As Moody has pointed out, some of the initial seeds for the decline of social unionism took place during World War II when the CIO unions were increasingly bureaucratised by the highly formalised industrial relations system that was set up by the War Labour Board. The second critical factor was the passage of the Taft-Hartley Act in 1947. In addition to aiding the deradicalisation of the CIO by requiring all trade union officials to sign noncommunist disclaimers, this act carefully outlawed many of the solidaristic tactics that had made the CIO so effective in the 1930s. With one stroke of the pen, sympathy strikes, secondary boycotts, wildcat strikes, and mass picketing were all declared illegal. Equally important, the 'right to work' provision of Taft-Hartley helped to create a vast nonunion getaway for US capital within the nation's hinterlands and particularly in the South.³³

The final factor that greatly weakened the CIO was the massive political repression of leftists and other labour militants which ultimately resulted in the expulsion of eleven CIO unions in 1950.³⁴ As Davis points out:

The anti-communist inquisition within the CIO, in particular, produced a staggering series of losses: the 'deunionization' of the electrical and textile industries, the destruction of promising beachheads in the tertiary, professional and agricultural sectors, and the collapse of 'Operation Dixie.'³⁵ These reverses, in turn, had long-range effects on the structure of both the working class and of the trade-union movement in the 50s and 60s.³⁶

Of particular importance to our current discussion of worker-generated segmentation, Davis goes on to argue:

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- 33 As powerful testimony to the growing anti-union animus within the US, Republican 'tea party' governors have now brought their 'right to work' agenda to the North and Midwest. Indeed, in December 2012, Governor Snyder successfully pushed through a right to work bill in the state of Michigan, the birthplace of the United Auto Workers. There are now 24 right to work states.
 - 34 For more detailed accounts of the negative and often tragic effects of the anti-communist purges, see DeCaux 1970; Emspak 1972; Cauter 1978; Levenstein 1981; Davis 1986; and Moody 1988.
 - 35 Operation Dixie was the largely unsuccessful attempt by the CIO to organise the South that began in 1946. Goldfield argues that the CIO's failure to organise the South was the 'central cause of the political weakness of US labour unions, and the underlying reason for their generally defensive stance' (1987, p. 238).
 - 36 Davis 1986, p. 94.

[T]he failure to extend union organisation to the rapidly expanding female clerical proletariat and to Southern workers in general formed the basis for a new hierarchization and segmentation of the working class. Henceforth, the old ethno-religious dimension of working-class stratification, although scarcely abolished, lost primacy to racial and sexual division in the workforce. Similarly, skill differentials became relatively less important overall than union organisation and the incorporation into the generalized norm of mass consumption from which most Blacks, Southern workers and female breadwinners were excluded.³⁷

After we have completed our discussion of capitalist competition and the general dynamics of competitive wage determination in chapters 5 and 6, we will return to the issue of worker-generated segmentation. There we will show that the combined effects of highly uneven worker organisation and the ongoing dynamics of capitalist competition can provide a powerful alternative explanation for the rather pronounced inter-industry wage differentials that have persisted within the United States throughout most of the post-World War II period. We will also argue that the failure to continue to build militant and democratic forms of social unionism which could have brought many more workers into the folds of organised labour lies at the heart of the labour movement's current inability to defend itself against the growing pressures of capitalist competition – both domestic and international.

For now, however, the key point being established here is that workers' defensive attempts to contend with capital both inside and outside of the workplace can often lead to various degrees of labour market segmentation. This is one of the primary reasons that socialists have traditionally warned against the limits of 'pure trade unionism' and have repeatedly argued for additional forms of political organisation which are better equipped to bridge these divisions that so often appear between the employed and unemployed and the organised and unorganised.³⁸

Although both Marx and Engels were generally quite optimistic about the labour movement's ultimate ability to bridge these gaps,³⁹ they also understood that the intense competition between workers in the labour market was a very serious problem that would not be easily overcome. Thus, in *The German Ideology* they pointed out:

37 Davis 1986, p. 95.

38 For eloquent arguments on the crying need for a labour party within the United States, see Mazzocchi 1983; Moody 1988; and Davis 1986.

39 See Marx's Inaugural Address to the International Workingmen's Association (Marx 1974).

Competition makes individuals, not only the bourgeois but *still more the workers*, mutually hostile, in spite of the fact that it brings them together. Hence it is a long time before these individuals can unite ... To demand the opposite would be tantamount to demanding that competition should not exist in this definite epoch of history, or that the individuals should banish from their minds relationships over which in their isolation they have no control.⁴⁰

In their efforts to combat neoclassical economists who are repeatedly attempting to blame all forms of discrimination and inequities on workers and their unions, radical labour market segmentationists have often gone to the other extreme by minimising the role of organised labour in the segmentation process. Hence, they have primarily emphasised the role of capital and its attempts to divide and conquer.⁴¹ While we are not at all attempting to deny the very critical role that capital often consciously plays in aggravating existing (and inciting new) divisions within the working class, the tendency to minimise the role that workers have also played denies us the possibility of developing strategies that may be able to overcome these forms of worker-generated segmentation. Indeed, chapter 6 proposes that the radicals' preoccupation with the machinations of monopoly capitalists has often led them to underplay the ability for worker organisation to significantly reduce the degree of segmentation that currently exists within the US working class.

Clearly, if we are ultimately going to understand the complex process of differentiation within the contemporary working class, we must begin to distinguish its various forms whenever possible. We must be particularly careful to distinguish which types of differentiation stem from workers' attempts to protect themselves, and which types stem from the forces of capitalist competition and accumulation (whether planned or unplanned).

A Dynamic Analysis of Labour Mobility and Wage Differentiation Under Conditions of Permanent Underemployment

As noted in the beginning of this chapter, Marx's analysis of the general law of capitalist accumulation and the reserve army does not merely lay the basis for

⁴⁰ Marx and Engels 1967, p. 58, emphasis added.

⁴¹ Excellent critiques of this tendency to overemphasise the conscious actions of capital within labour market segmentation theory can be found in Rubery 1978 and Milkman 1980.

fundamental divisions within the working class based on whether workers are employed or unemployed. Within the actively employed sectors of the working class, the presence of permanent underemployment also has profound implications for the discussion of labour mobility and the development of inter- and intra-industry wage differentials.

Up to now, most discussions of competitive wage determination (whether Marxist, radical, or neoclassical) have generally assumed that effective levels of labour mobility will tend to equalise wage rates among workers of similar quality. As Melvyn Reder has noted, 'The mechanism that is supposed to bring about this equalisation is movement of workers from low to high income jobs, and therefore the competitive hypothesis implies that job changers will tend to move from lower to higher income jobs'.⁴² As these low-wage workers migrate to high-wage sectors, wage rates in the high (low) wage firms will be forced downward (upward). Thus, in a relatively short period of time, any significant differentials that have momentarily developed will be eliminated. Of course, if substantial wage differentials should continue to persist, it is assumed that serious restrictions in the mobility of labour are the cause.

Although Marx's analysis of the equalisation of wage rates is often conflated with neoclassical theory, orthodox economics actually relies on a number of techniques and assumptions that are quite alien to Marx. First, the neoclassical discussion of labour mobility and the equalisation of wage rates not only assumes full employment, but it also takes place within a static framework that abstracts from the dynamics of ongoing accumulation. Thus, the total level of employment is held constant, and the equalisation of wage rates takes place primarily through shifts in the locational composition of a given workforce.

The assumption of a given workforce further implies that the shifting of labour from one sector to another is essentially a zero sum game. Thus, what is gained as an absolute increase in employment in the high-wage sectors must be lost to the low-wage sectors. Given the additional orthodox assumptions concerning the direct relationship between wage rates, marginal productivity, and levels of employment, these changes in employment levels call forth the appropriate adjustments in wage rates. Finally, because neoclassical theorists also assume that the mobility of labour is a nonantagonistic process that incurs no significant costs for either capital or labour, the slightest deviation from the average wage rate will result in immediate changes in current levels of employment within all of the relevant sectors.

⁴² Reder 1958, p. 76.

As we continue to construct our discussion of Marx's analysis of competitive wage determination, we will eventually see that Marx's argument significantly disagrees with neoclassical theory on each of the above points. The discussion of Marx's view of the aggregate labour market (see chap. 3) has already shown that the linkages between the general wage level, the productivity of labour, and the level of employment are not at all immediate. Nor can they be properly captured within static analysis. On the contrary, these linkages must be analysed within a dynamic context of ongoing accumulation whereby changes in the *rate of growth* of real wages are ultimately regulated by the dynamic interaction of movements in the rate of accumulation, the rate of growth of productivity, and the rate of growth of employment.

In order to develop a corresponding analysis of the regulation of differential wage rates across different sectors of the economy, we must also invoke the power of dynamic analysis. Thus, rather than utilising a static framework which assumes that differential wage rates across various industries will tend to cause immediate changes in sectoral levels of employment, we must develop a dynamic framework to investigate how differential rates of growth in wage rates may ultimately cause differential rates of growth in output and employment. Once we move to a dynamic analysis where wage rates are primarily regulated by modulations in the rate of growth of employment, however, we no longer have a zero sum game. Eventual increases (decreases) in the absolute level of employment in certain sectors of the economy no longer require corresponding decreases (increases) in other sectors, and the dynamic regulation of wage rates becomes far more complex.

Marx's discussion of wage determination eventually shows that the dynamic linkages between movements in wage rates and changes in the rate of growth of employment primarily take place at two different levels. At the aggregate level, we have already seen how increases in the *general wage level* that tend to outstrip productivity growth will ultimately call forth decreases in the rate of accumulation, and hence, decreases in the rate of growth of aggregate employment. Here, the key link to the rate of accumulation is through the negative effect that movements in the general wage level may tend to have on the *general rate of profit* for the economy as a whole (see chap. 3).

Once we move to the more particular discussion of *differential wage rates*, the focus will be on changes in wage rates that are localised within a limited number of firms and/or industries. Consequently, the effects on the general rate of profit will tend to be minimal, and movements in the general rate of accumulation and aggregate employment levels will not play a critical role here.

Yet, although local movements in wage rates will not have an important influence on the general rate of profit, they will have a significant effect on

the profit rates of individual firms and/or industries that are directly affected by these wage differentials. Thus, at this more concrete level of analysis, it is primarily through the generation of *differential profit rates* and the resulting differential rates of growth of output and employment between and within these industries that the dynamic regulation of wage rates will tend to take place. Once we begin to discuss the regulation of rates of profit between and within industries, however, we are ultimately talking about the dynamics of capitalist competition.

Because we have not yet developed the analysis of capitalist competition and differential profit rates, further discussion of these more complex dynamics that arise from changes in the inter-industry wage structure will have to wait until chapters 6 and 7. At this point, however, we can discuss one very important result of Marx's dynamic analysis of the aggregate labour market that will have immediate effects on both the mobility of labour and the equalisation of wage rates. Here, we are referring to the constant presence of a substantial pool of unemployed workers.

As we shall soon see, this constant reserve army not only creates a key basis for wage differentiation, but it also sets important limits to that differentiation. Thus, at this level of analysis, it is precisely through the reserve army that the laws of capitalist accumulation continually make their presence felt.

Once we recognise that chronic underemployment is the *normal* condition within the aggregate labour market, the zero sum game of orthodox theory once again no longer operates. Thus, labour mobility is no longer a sufficient condition for the equalisation of wage rates. Even if we assume that many low-wage workers are eventually able to migrate to high-wage sectors, low-wage firms may continue to find ample sources of cheap labour within the reserve army. Consequently, there will tend to be little upward pressure on wage rates at the low end of the labour market. As noted earlier in this chapter, it is precisely because of these ever present pools of desperate workers that Marx argues that 'special spheres of capitalist exploitation' will be constantly reproduced.⁴³

Orthodox economists have generally been quite willing to concede that 'the competitive hypothesis is simply incompatible with more than frictional unemployment'.⁴⁴ Within neoclassical models of competitive wage determin-

43 For an interesting attempt to use the above classical Marxist model of the reserve army as a partial explanation for increasing inequality within Australian labour markets during the 1990s, see Ian Watson 2002.

44 Reder 1958, p. 80. See also Cartter 1959, p. 25. For a more general discussion of the necessity for price differentiation within markets that are characterised by excess supply, see Arrow 1959.

ation, however, the problem of underemployment is carefully side-stepped by assuming that involuntary unemployment is primarily the result of 'imperfections' or momentary 'frictions' within the labour market. Thus, the anomaly of persistent wage differentials is once again blamed on the restriction of competitive mechanisms.

Although institutional labour economists have also tended to argue that underemployment is largely due to various imperfections, their greater sensitivity to the harsh realities of chronic unemployment has often led them to examine this problem far more closely. Through their empirical investigations of actual labour markets, they have developed a number of important insights concerning the real dynamics of labour mobility and its effects on the wage equalisation process.⁴⁵ In many ways, these insights have also tended to reconfirm several of Marx's arguments within the modern period.

In one of the first systematic investigations of the actual dynamics of labour mobility under conditions of underemployment, Lloyd Reynolds discovered the following:

Movement and potential movement of labour seems inadequate to prevent large and persistent differences in aggregate job attractiveness. Some jobs are very much better than others, and vacancies on these jobs are rationed among a chronic surplus of applicants. Those unable to get into the better jobs must perforce take poorer ones. Nor is this merely a temporary situation.⁴⁶

Within labour markets where underemployment is the norm, Reynolds repeatedly observed that the primary motivation for labour mobility is usually not higher wage rates, but the availability of job openings. At the low end of the wage spectrum, he also noted that 'except during brief periods of peak prosperity, even the lowliest jobs find an adequate labour supply'.⁴⁷ He therefore concludes his discussion by suggesting that it is the 'chronic underemployment of labour' and not the imperfect mobility of labour that is one of the key factors in the persistence of unwarranted wage differentials.⁴⁸

Within a Marxian analysis of the aggregate labour market which argues that unemployment is systematically reproduced by the laws of capitalist accumulation, these institutionalist insights become quite powerful. They essentially

45 For good summaries of these institutionalist insights, see Segal 1986 and Kaufman 1988b.

46 Reynolds 1951, p. 246.

47 Reynolds 1951, p. 222.

48 Reynolds 1951, p. 246.

suggest that under normal conditions of capitalist accumulation, it is no longer necessary to argue that labour mobility must be significantly restricted in order to explain the existence of persistent wage differentials.⁴⁹

At this point we have argued that the constant presence of desperate pools of unemployed workers will significantly weaken any potential *upward* pressure on wage rates at the low end of the labour market. Thus, the reserve army clearly provides an important foundation for sustained wage differentials among workers of similar skill and ability. Nevertheless, at the other end of the labour market it is also critical to recognise that this continual unemployment will ultimately tend to exert significant *downward* pressure on above-average wage rates.

In neoclassical economics, downward pressure on high-wage sectors theoretically occurs as newly entering workers from low-wage sectors begin to offer their labour at slightly lower wage rates. This, in turn, encourages high-wage firms to expand employment as they make marginal adjustments along their downward sloping marginal revenue product curves. Overall, labour mobility is therefore pictured as a benign, nonantagonistic process involving minimal costs for both capital and labour.

Within Marx's analysis of the dynamics of competition in both capital and labour markets, the potential and actual mobility of labour takes on a very different character. Given the presence of a constant pool of unemployed workers, labour mobility is often an extremely antagonistic process that can impose significant costs on employed workers. Those workers who ultimately exert a downward pressure on above-average wage rates primarily come from various components of the reserve army. Thus, these workers not only come from the chronic low-wage (or stagnant) sectors of the economy, but from the latent and floating sectors of the reserve army as well. More important, the actual pressure on above-average wage rates does not arise from the high-wage sector's gradual extension of employment along the margin. Rather, it comes from the actual or potential *replacement of the high-wage workers* by these cheaper and generally more desperate workers within the reserve army.

It is also critical to note that labour mobility does not merely impose costs on high-wage workers who may ultimately be forced to endure significant wage cuts or join the ranks of the unemployed. It can also be a costly affair for capital. Furthermore, once we develop our analysis of capitalist competition and the differentiation of capitals in chapter 6, we will see that these costs tend to

49 As already noted in chapter 2, the assumption of restricted labour mobility became a serious problem for labour market segmentationists.

vary substantially across different industries. Briefly, whether labour mobility ultimately takes place through the forcible importation of low-wage labour or through the mobility of capital to that cheap labour, these differential costs will largely depend on three key factors: the level of militancy and organisation of the current workforce; the differential costs of training a new workforce; and differential technical conditions of production across various industries (e.g. capital intensity, plant size, etc.).

Yet, although gaining access to low-wage workers in the reserve army may often involve substantial costs to certain capitals, it nevertheless remains an important option that becomes increasingly attractive to all capitals as the range of wage differentiation grows. As the wage differential between the currently employed workforce and capital's potential labour reserves continues to widen, and as fixed capital structures begin to depreciate, it will eventually become cost effective for capital to tap into those low-wage reserves.⁵⁰

Thus, within Marx's analysis of the aggregate labour market, the reserve army lays the basis for potential wage differentiation, and also sets critical limits to that differentiation. Moreover, although the actual or potential mobility of labour will ultimately place very real limits on the range of wage variation, it will not *eliminate* these differentials. In fact, within highly capital-intensive industries where capital mobility can be quite expensive, substantial wage differentials may develop for prolonged periods of time before these capitals find it profitable to attempt to reduce them.⁵¹

Because the mobility of labour is so clearly intertwined with the mobility of capital, we cannot yet develop a systematic analysis of the real costs of labour

50 The past three decades of US capital flight – first to the nonunion South and then to low-wage havens abroad – provides us with a dramatic example of how the presence of low-wage reserves will ultimately cause capital to relocate despite significant mobility costs. As Davis points out, between 1962 and 1978, 90% of the new manufacturing jobs created in the United States were located outside of the unionised heartland (Davis 1986, p. 130). [Since 1993, when this book was first published, the problem of outsourcing to other countries such as China has become more acute. In 2011, the *Wall Street Journal* noted that US multinational corporations which employ a fifth of all American workers 'have been hiring abroad while cutting back at home'. Indeed, during the 2000s these companies cut their workforces in the US by 2.9 million while increasing employment overseas by 2.4 million. See Wessel 2011. Of course, lower labour costs were not the only reason for this movement of jobs. For a useful review of the literature on outsourcing, see Miller, 'Outsized Offshore Outsourcing', *Dollars & Sense*, 2007.]

51 As we have already seen in chapter 2, efficiency wage theories were partly motivated by the obvious need to explain why high-wage firms often will not attempt to lower their wage rates despite the presence of persistent unemployment.

mobility until we have first developed our analysis of the differential costs of capital mobility. In fact, it is a key contention of this book that a proper analysis of labour mobility can only take place within the context of Marx's analysis of the real conditions of capitalist competition.

Once we have finally constructed our discussion of real capitalist competition, we will be able to further concretise our analysis of labour mobility. Here we will see that neither the mobility of capital nor the mobility of labour is 'perfect', but both are largely determined by the technical conditions of production within each industry. Moreover, once we understand that real capitalist competition also results in the continual differentiation of profit rates between and within industries, we will see that various capitals will often face very different degrees of pressure to utilise the reserve army in order to force their labour costs downward. While some well-situated capitals may be able to sustain above-average wage rates for prolonged periods of time, many inefficient firms and dying industries may be forced to tap into the reserve army merely to prolong their survival.

Although we cannot fully develop this discussion of competition here, our current discussion of the aggregate labour market has allowed us to begin to see an important regulating principle. This is that *the overall range of wage differentiation in any particular labour market will largely depend on a particular firm and/or industry's conditions of access to its potential labour reserves*.⁵²

To summarise, it is important to note that all of the above potential foundations for wage differentials that have been developed so far have not required any assumptions concerning the restriction of competition in either the capital or labour markets. The initial section of this chapter showed that an analysis of the various components of the reserve army of labour can clearly be derived from the general laws of capitalist accumulation. Thus, we were not forced to resort to arguments of monopoly capital or a dual economy in order to explain the continued reproduction of a 'secondary labour market'. The dynamic analysis of wage differentiation further determined that the linkages between wage rates and employment levels are far more complex than those that have been suggested by the static analysis of orthodox theory. Because Marx's dynamic analysis does not imply a zero sum game, it also allows for appreciably more room for differential movements in wage rates to develop without requiring immediate adjustments in current levels of employment. Finally, upon further exploration of the implications of permanent underem-

52 Here, S. Friedman's (1984) distinction between the general reserve army and particular reserve labour forces for various industries also becomes quite useful.

ployment, we discovered that persistent wage differentials can be easily derived without resorting to arguments that are based on the restriction of the mobility of labour.

All that remains to be developed is Marx's distinctive analysis of capitalist competition, which will allow us to show how persistent and substantial differentials in profit rates can also be explained without resorting to arguments of imperfect competition or monopoly power.

Uneven Technical Change, Competition, and the Reserve Army: A Brief Glimpse of Marx's Theory of Wage Differentials

It is important to note that there are a number of passages in the first volume of *Capital* where Marx briefly shows how capitalist competition, uneven technical change, and the various components of the reserve army interact to create numerous patterns of differential wage rates. Indeed, Marx's chapters on the 'Working Day', 'Machinery and Modern Industry', and the 'General Law of Capitalist Accumulation' contain graphic illustrations of how these three factors repeatedly interact to produce a horrifying mosaic of differential degrees of exploitation within the working class.

In the first volume of *Capital*, which remains at a fairly high level of abstraction, the concrete connections between competition, technical change, and the reserve army are not (and could not be) systematically developed. Nevertheless, these passages provide an important glimpse of how Marx eventually intended to develop his final analysis of wage determination once he had completed his discussion of capitalist competition in volume 3. It is also significant that these concrete discussions of inter-and intra-industry wage differentials have generally been overlooked by most writers who continue to assume that Marx's analysis of wage differentials is quite similar to neoclassical theory. For both of these reasons, it will prove useful to briefly discuss these passages before developing the connections between capitalist competition and wage determination in a far more systematic fashion. Because this volume is largely an attempt to fill in some of the missing intermediate steps in Marx's analysis of wage differentials, these passages will also provide us with a useful preview of the remainder of our argument.

Within neoclassical theory, the idealised assumptions of perfect competition and general equilibrium tend to portray capitalist development as a smooth and tranquil process which takes place primarily through tiny marginal adjustments that reverberate evenly throughout the economy. In contrast, Marx's analysis of 'Machinery and Modern Industry', presents a very different

view of the dynamics of capitalist development. Rather than changes taking place through marginal adjustments, many sectors of the economy grow in discrete jumps and furious leaps, while other sectors are trapped within prolonged stages of stagnation and decline. We also see that the introduction of modern technology often takes place unevenly across different industries. Even within the same industry, new techniques are rarely introduced simultaneously within all firms.

Given this uneven development between and within industries, Marx goes on to show that there is also a great deal of combined and uneven development within the labour markets that are connected to these different industries. And, of course, these uneven dynamics within the labour market have an important role to play in the development of certain patterns of inter- and intra-industry wage differentials.

Between Industries. As we have just pointed out, one of the key factors that continually lays the basis for differential wage rates across industries is the uneven development of technical change. In certain industries, for example, 'where the production of the article by manufacture consists, not of a series of graduated processes, but of a great number of disconnected ones', Marx notes that the transition from manufacturing to modern industry often proceeds rather slowly.⁵³ In other industries, the limited extent of the market may also hold back the introduction of more capital-intensive methods.⁵⁴

Given this uneven development of technical change, those sectors of the economy that are more stagnant technologically will tend to be flooded with surplus labourers who are cast off by sectors that are developing more capital-intensive techniques.

That portion of the working class, thus by machinery rendered superfluous ... either goes to the wall in the unequal contest of the old handicrafts and manufactures with machinery, or else floods all the more easily accessible branches of industry, swamps the labour market, and sinks the price of labour-power below its value.⁵⁵

Thus, as noted earlier, many branches of industry that have easy access to these pools of cast-off workers may tend to develop into special branches of 'super exploitation'. Marx argues that the development of technical change within

53 Marx 1967a, p. 460.

54 Marx 1967a, pp. 343, 549.

55 Marx 1967a, p. 431.

the more advanced sectors will have particularly 'murderous and antagonistic' results for wages and working conditions within the more backward sectors which are continually flooded with new recruits.

In a section of *Capital* entitled 'Reaction of the Factory System on Manufacture and Domestic Industries', Marx summarises the various factors that lead to these different degrees of exploitation.

The exploitation of cheap and immature labour-power is carried out in a more shameless manner in modern Manufacture than in the factory proper. This is because the technical foundation of the factory system, namely the substitution of machines for muscular power, and the light character of the labour, is almost entirely absent in Manufacture, and at the same time women and over-young children are subjected, in a most unconscionable way, to the influence of poisonous or injurious substances. This exploitation is more shameless in the so-called domestic industry than in manufactures, and that because the power of resistance in the labourers decreases with their dissemination; because a whole series of plundering parasites insinuate themselves between the employer and the workman; because a domestic industry has always to compete either with the factory system, or with manufacture in the same branch of production; because poverty robs the workman of the conditions most essential to his labour, of space, light and ventilation, because employment becomes more and more irregular; and finally, because in these the last resorts of the masses made 'redundant' by Modern Industry and Agriculture, competition for work attains its maximum.⁵⁶

From here, Marx goes on to depict the horrifying conditions that developed in the brass foundries, button factories, enamelling, and lacquering works.⁵⁷ And finally, in the case of the wearing apparel industry, once again, 'the mass of cheap human material is composed of the individuals "liberated" by mechanical industry and improved agriculture'.⁵⁸

⁵⁶ Marx 1967a, p. 462.

⁵⁷ Marx 1967a, p. 463.

⁵⁸ Marx 1967a, p. 471. Within today's highly globalised manufacturing systems, it pains this writer to note that very similar conditions of brutal exploitation can now be readily found within the garment industry of Bangladesh. (See numerous reports from the International Labour Rights Forum at www.labourrights.org). Paradoxically for those who had such high hopes for the new high tech sectors, we can also find this kind of brutalisation of

The great production of surplus value in these branches of labour, and the progressive cheapening of their articles were and are chiefly due to the minimum wages paid, no more than requisite for a miserable vegetation, and the extension of working time up to the maximum endurable by the human organism. It was in fact by the cheapness of the human sweat and the human blood, which were converted into commodities, that the markets were constantly being extended.⁵⁹

There are many other passages throughout *Capital* where Marx discusses other examples of superexploitation and below average wage rates.⁶⁰ It is important to note, however, that these low-wage sectors cannot be easily characterised as momentary disequilibrium phenomena. These divergent developments are far too deep and far too persistent to be so easily dismissed. Furthermore, Marx also shows how the peculiar dynamics of capitalist competition and technical change that sometimes develop within these low-wage sectors often tend to deepen and reproduce these differential conditions of employment.

In the previous chapter, we noted that neoclassical economics conveniently assumes that capitalist competition and full employment will create equitable wages and working conditions across all industries as capitalist firms are forced to compete in order to hold onto a stable workforce. Yet, within Marx's more realistic analysis of chronic underemployment, capitalists are rarely forced to provide equitable wages. On the contrary, inhuman hours, miserable wages, and extremely unhealthy working conditions often become the *basis* for capitalist competition within many of these low-wage sectors.

Before laws were enacted to place certain minimal restrictions on this type of competition, intense labour market competition often forced workers to work increasingly long hours for a constantly diminishing hourly wage. In certain sectors, Marx notes that these 'abnormal quantities of unpaid labour' were then systematically extended and reproduced as they became a chief source of capitalist competition.

workers within the Chinese Foxconn factories which manufacture the iPad. See Duhigg and Barboza 2012.

59 Marx 1967a, p. 471.

60 As noted earlier, one of the most persistent sectors of low-wage workers occurs within agriculture (Marx 1967a, p. 642). In Marx's time, luxury goods was another sector where exploitation often achieved abnormal heights (Marx 1967c, p. 237).

The unpaid part of the labour-price need not be reckoned in the price of the commodity. It may be presented to the buyer. This is the first step to which competition leads. The second step to which it drives, is to exclude also from the selling price of the commodity, at least a part of the abnormal surplus value created by the extension of the working day. In this way an abnormally low selling price of the commodity arises, at first sporadically, and becomes fixed by degrees; a lower selling price which henceforward becomes the constant basis of a miserable wage for an excessive working time, as originally it was the product of these very circumstances.⁶¹

Finally, Marx also points out that the introduction of machinery in the more advanced sectors will often have a retarding effect on the development of technology in other sectors. This is primarily because the highly mechanised sectors 'create such a redundancy of labour in other branches of industry that in these latter the fall of wages below the value of labour power impedes the use of machinery'.⁶² Thus, not only does mechanisation in the advanced sectors create desperate pools of cheap labour which can be brutally exploited in other sectors, but it may also tend to exacerbate the uneven development of technical change which helped to lay the basis for these differential conditions in the first place.⁶³

In sum, Marx's analysis of the interaction of technical change, competition, and the reserve army clearly provides the basis for sustained patterns of inter-industry wage differentials. Contrary to orthodox economics, the overflowing of many labour markets and the subsequent generation of below average wage rates are not necessarily the results of trade unions that have restricted and distorted the 'perfect' mechanisms of the capitalist marketplace. They are often the direct result of the essential dynamics of capitalist competition and technical change.

Although some readers may protest that the above differential conditions within the labour market are really only pertinent to the sharp contrasts that developed between industries during the transition from manufacture to modern industry, Braverman has developed an equally powerful analysis of the uneven effects of technical change within the modern labour market. As a par-

61 Marx 1967a, p. 549.

62 Marx 1967a, pp. 393–4.

63 For a more contemporary discussion of how access to low-wage labour can have a stag-nating effect on technical change, see Deakin and Wilkinson 1989.

tial explanation for the sharp divergences that have developed between wage rates in the manufacturing sector as opposed to the service and clerical sectors, Braverman suggests the following:

The masses of labour sloughed off by the rapid mechanization of industry ... furnish the labour supply for the clerical, service and sales fields. The mechanization of industry produces a relative surplus of population available for employment at the lower pay rates that characterize these new mass occupations.⁶⁴

As noted above, there is also strong evidence that conditions of superexploitation are reappearing in the modern US economy as sweatshop conditions are rapidly becoming the competitive standard in the growing garment and electronics industries in New York City and Los Angeles.⁶⁵ The US poultry industry, which primarily employs nonunion labour in the South, is another grim reminder of the worst kinds of abuse that can take place within the 'free labour markets' of modern capitalism.⁶⁶

Within Industries. Here, the uneven development of technical change once again plays a critical role in both the differentiation of capital and the differentiation of labour. Very briefly, in discussions of the gradual development of new mechanised techniques within various industries, Marx shows that workers who are unfortunate enough to be employed in the more backward firms will generally find that their wages and working conditions will deteriorate both absolutely and relatively to workers who are employed in the more advanced firms. As competitive pressures intensify for these less efficient firms, their

64 Braverman 1974, p. 382. The only puzzling thing about Braverman's analysis is that he sometimes (although not always) suggests that this kind of uneven development is primarily a result of 'monopoly capitalism'. Yet, from the above passages in *Capital*, it seems quite clear that monopoly has very little to do with Marx's analysis, and that Braverman is actually discussing, in modern terms, an ongoing dynamic of capitalism.

65 Kelly 1989 and Sassen 1989.

66 According to *Labour Notes*, the 150,000 poultry workers in the United States are 'some of the most productive, lowest paid and most injured manufacturing workers in the US'. Indeed, approximately 28,000 of these workers lose their jobs or become disabled every year as a result of work-related injuries. It should also come as no surprise that 50% of these workers are women, and that a majority are African-American. See 'Poultry Workers Trapped in a Modern Jungle', *Labour Notes*, May 1991. It is ironic that this exposé on the poultry industry appeared only months before 25 poultry workers in Hamlet, North Carolina, were tragically burned to death as a result of fire doors being illegally chained shut to prevent petty theft. See *Labour Notes*, October 1991.

continued survival will often require the lowering of wage rates and the simultaneous cranking up of the intensity of labour. Thus, Marx notes that 'when machinery seizes on an industry by degrees, it produces chronic misery among the operatives who compete with it'.⁶⁷

Although Marx is quite clear that the antagonism between the labourer and the more modern instruments of labour 'comes out most strongly, whenever newly introduced machinery competes with handicrafts or manufacturing', he also points out that 'even in modern industry, the continual improvement of machinery and the development of the automatic system, has an analogous effect'.⁶⁸ Thus, even within the modern sectors, those workers who manage to hold onto their jobs within the less efficient firms may be increasingly forced to accept deteriorating conditions for the continued sale of their labour power. Moreover, once we develop Marx's analysis of capitalist competition, we will also see that modern industry is essentially synonymous with large amounts of fixed capital investment that require prolonged periods of turnover. Thus, differential conditions of production will be continually reproduced within industries as new capitals enter with the latest techniques and older capitals continue to depreciate their aging fixed capital stock (see chapter 5).

On the Incompleteness of Marx's Work

From his initial 1857 outline of *Capital*, we know that Marx had originally intended to write an entire volume on the subject of wage labour after he had completed his analyses of capital in general, capitalist competition, and landed property.⁶⁹ As Rosdolsky has clearly shown, however, much of the material that Marx originally intended to include in a separate volume on wage labour was subsequently included in volume 1 of *Capital*. Nevertheless, although Rosdolsky correctly argues that most of the important themes were later taken up in volume 1, he also admits that 'we can not say exactly which themes were to have come under the scope of the Book on Wage-Labour, as we have no precise information on this subject'.⁷⁰

What we are suggesting here is that although Marx clearly did move up a great deal of his discussion on wage labour *in general* in order to dialectically

67 Marx 1967a, p. 484.

68 Marx 1967a, p. 432.

69 See Rosdolsky 1977, chap. 2.

70 Rosdolsky 1977, p. 57.

complement his analysis of capital in general,⁷¹ a systematic treatment of the differentiation of labour had to await the differentiation of capital, which was to be analysed in volume 3. Thus, not only was a more complete discussion of skilled and unskilled labour still to come,⁷² but there are good reasons to argue that Marx's complete analysis of competitive wage determination was ultimately never finished. For example, in the above passage where Marx briefly discusses how below normal wages may become the basis for capitalist competition in certain industries, he also warns the reader that 'this movement is simply indicated here, as the analysis of competition does not belong to this part of our subject'.⁷³ In the beginning of this same chapter, he also points out that 'an exposition of all these (wage) forms ... belongs to the special study of wage-labour, not therefore to this work'.⁷⁴

Thus, it is our contention that the above passages where Marx briefly discusses the interaction of capitalist competition and wage determination remain incomplete discussions, and that we are essentially left with the project of developing these dynamics far more systematically. In order to develop a systematic theory of competitive wage determination in general and wage differentials in particular, it would have been necessary for Marx to do the following. *First*, Marx would have had to show how the dynamics of capitalist competition and the continual generation of differential profit rates between and within industries must necessarily have significant consequences for the dynamics of competitive wage determination between and within those same industries. (Here we are suggesting that Marx would have had to follow a very similar procedure for the analysis of differential wage rates that he did, in fact, complete for his analysis of differential rent). *Second*, it would have been necessary to show how the real conditions of labour mobility are profoundly shaped by the conditions of capital mobility and must therefore be analysed within the context of real capitalist competition. *Finally*, Marx would have had to complete his analysis by showing how the general laws of accumulation within the aggregate labour market must eventually be connected back up with the more concrete determinations of capitalist competition and competitive wage determination. These are precisely the steps that remain to be completed within this book.

71 'Capital presupposes wage-labour, and wage-labour presupposes capital. One is a necessary condition to the existence of the other' (Marx 1967a, p. 578).

72 Rosdolsky 1977.

73 Marx 1967a, p. 549.

74 Marx 1967a, p. 543.

Capitalist Competition and Differential Profit Rates

The very concept of ‘imperfect’ competition is itself the dark side of the concept of ‘perfect’ competition. In perfect competition all of the tactics and strategy of real competitive battles are spirited away. Then, when faced with the unavoidable discrepancy between the fantasy world of perfect competition and the elementary facts of real competition, instead of overthrowing perfect competition orthodox theory seeks to reform it. Hence *imperfect* competition. Yet the real imperfection lies not in actual competition, but rather in the concept of perfect competition itself and its false and onesided abstraction of the real relations ... [T]he conception of competition contained in Marx is vastly richer than perfect competition and its counterpart, imperfect competition. Marx’s conception contains elements of both of these orthodox polarities – not as exclusive poles, but rather as aspects of the same organic process.

– ANWAR SHAIKH,¹ ‘Marxian Competition versus Perfect Competition’



In the first two chapters of this book, we argued that the general acceptance of the theory of perfect and imperfect competition by most radical and institutional labour economists has been a critical barrier to the development of a viable alternative to the neoclassical theory of competitive wage determination. In chapter 2, we suggested that the implicit acceptance of perfect competition as the logical starting point for the analysis of highly competitive markets has repeatedly forced these economists to rely on theories of monopoly power and the dual economy to explain the long-standing evidence of persistent differential wage and profit rates. Moreover, their subsequent rejection of

¹ As readers will quickly notice by the number of critical footnotes attributed to Anwar Shaikh within this chapter, this discussion of Marx’s analysis of real capitalist competition is heavily based on Shaikh’s groundbreaking work which was partly unpublished at the time of the first edition of my book. However, I am delighted to note that readers of this new edition can now have access to Shaikh’s most comprehensive discussion of these matters within his outstanding new book, *Capitalism: Competition, Conflict, Crisis* (Shaikh 2016).

systematic competitive limits to wages, prices, and profits within 'core' sectors of the economy invariably led to serious problems of indeterminacy and inconsistency.

Perhaps the most ironic aspect of these radical and institutional arguments has been their consistent tendency to conflate Marx's analysis of capitalist competition with the neoclassical theory of perfect competition. Thus, just as the theory of perfect competition ultimately had to be rejected as an adequate description of the modern economy, so too did Marx.

This chapter presents a very different view of Marx's theory of capitalist competition that will provide the foundation for a very different approach to competitive wage theory. Utilising Marx's theory of capitalist competition between and within industries, a growing number of writers have convincingly argued that many phenomena previously considered to be evidence of imperfect competition and monopoly power can actually be explained within the framework of ongoing capitalist competition.² Of particular importance, these writers have shown that many of the observed patterns of differential profit rates and profit margins that persistently appear between and within many industries can be derived directly from the Marxian model of competition itself.

Once we are able to show that capitalist competition results in differential profit rates among various firms and industries, it then becomes possible to develop a *competitive* explanation for a similar set of wage differentials among workers who are employed in these locations. Moreover, once we are no longer forced to interpret the existence of differential profit and wage rates as immediate evidence of monopoly power, we can begin to investigate how the forces of ongoing competition will also tend to set important limits to these variations in wages, prices, and profits. Thus, we may finally be able to develop a viable theory of competitive wage determination that is capable of explaining much of the evidence of differential wage rates without having to argue that competition is no longer a key determining force in the modern economy.

Our exposition of Marx's analysis of competition is developed in four parts. The first part is a lengthy discussion of Marx's theory of competition *within industries* paying careful attention to distinguish Marx's arguments from both neoclassical economics and monopoly capital theory. The next part addresses

2 See Clifton 1977, 1983; Weeks 1981; Shaikh 1980b, 1982a, 2008, 2016; Semmler 1982, 1984; Bina 1985; and Moudad et al. 2013. Extensions of this classical Marxist analysis to the area of international trade and development can be found in Shaikh 1979a, 1980a, 2016; Weeks 1985; and Jenkins 1989.

Marx's analysis of competition *between industries*; and the third part combines these previous two levels of analysis in order to develop Marx's argument of 'regulating capitals'. The final section concludes the discussion by presenting a critical review of much of the important empirical 'evidence' for the presence of monopoly within the modern capitalist economy. (In this new edition I have also added an appendix to this chapter in order to discuss a series of important new developments in the Marxist and Classical discussion of real capitalist competition.)

Competition within Industries

Perfect Competition – Strange Beginnings and Curious Bedfellows

It will be useful to first briefly review the neoclassical theory of perfect competition. As in chapter 3, this will allow us to develop Marx's discussion of highly competitive markets in sharp contrast to orthodox economics. It will also allow us to show that it is neoclassical theory and not Marx's analysis of competition that has often been adopted by many radical and Marxist economists.

Within neoclassical economics, the highest level of competition (i.e. perfect competition) requires two extremely restrictive sets of conditions which, in turn, imply a very peculiar set of behavioural assumptions concerning the 'competitive firm'. *First*, given the assumptions of perfect information and perfect mobility of resources (i.e. no fixed capital), neoclassical theory suggests that all firms within a competitive industry will tend to possess identical cost structures and hence, identical profit rates. Although the introduction of new, more efficient techniques may cause minor disturbances in the equality of cost structures, these disturbances will tend to be short-lived. Not only will all other firms in the industry immediately become aware of these new techniques (via perfect information), but they will also immediately move to adopt them (via perfect mobility).

Second, highly competitive industries must also consist of an 'infinite number of infinitesimally small firms'. This condition is necessary to ensure that individual firms cannot have a significant impact on market supply and hence, market price.³

Given these highly restrictive conditions, neoclassical theory then derives its behavioural assumptions concerning the 'competitive firm'. It is here that we confront the peculiar conclusion that under conditions of highly effective

3 See Eatwell 1982; McNulty 1967; and Stigler 1957.

competition, 'no firm views another as a competitor'.⁴ Indeed, each individual firm is incapable of having any appreciable effect on its rivals, and the development of an offensive price-cutting strategy to either defend or enlarge an individual firm's market share is deemed to be both unnecessary and highly irrational. Perhaps most surprising, these assumptions theoretically hold true even for the innovating firm with the lowest costs in the industry.

To understand why an innovating firm would find it neither necessary nor rational to actively lower its prices, we simply need to go back to the original neoclassical assumptions. Given the assumption of infinitesimally small firms, neoclassical theory has ensured that each firm (innovator or otherwise) can already sell as much product as it desires without having to lower its selling price. Thus, even though the innovator's new technique will probably require a significantly enlarged scale of production, it will not be necessary to lower prices to accommodate this increased output.

If lowering prices is not required to realise the innovating firm's expanding output, the only other compelling rationale for active price-cutting would have to come from the possibility of inflicting long-term damage to rival firms. But here, once again, the conditions of perfect competition have precluded this possibility.

Given the assumptions of perfect information and perfect mobility, the innovating firm can at best enjoy only a momentary cost advantage over its competitors. Consequently, to actively lower prices would only bring swift and *equally capable* retaliation from all other firms in the industry. Under these conditions the innovator would therefore be unable to secure any long-term advantage over its competitors. In fact, all that would be accomplished by such an aggressive pricing strategy would be a more swift reduction in the market price and the elimination of any short-term surplus profits that could have been achieved if the innovator *had not initiated the price decrease!*

In sum, within the neoclassical theory of highly competitive markets, there never comes a time when the innovating firm is either forced or enticed to make room for itself in the market. On the contrary, all real capitalist competition that entails the constant and often vicious rivalry for market shares has essentially been eliminated by theoretical construction.⁵ Even more striking, if the number of competing firms becomes small enough (and each firm becomes large enough) so that capitals are eventually forced to engage in direct rivalry

4 Mansfield 1983, p. 204.

5 See Shaikh 1982, p. 78. For an institutionalist critique of perfect competition as a useful theoretical starting point for understanding the real dynamics of industrial competition, see Auerbach 1988.

over market shares, this is considered to be one of the essential foundations for the development of 'imperfect competition'. Thus, not only does the neoclassical theory of perfect competition eliminate the potential for real capitalist competition, but the underlying logic of this quantity theory of competition curiously requires us to view growing rivalry over market shares as a sign of the *lessening of competition*.

Given the tendency for neoclassical economists to confuse the scientific process of abstraction with the ideological process of idealisation, the above distortion and actual inversion of real-world phenomena is not terribly surprising. What is surprising, however, is the general adoption of the theories of perfect and imperfect competition by many radical and Marxist economists who are otherwise highly critical of neoclassical economics. Even more disturbing is the equally prevalent tendency to confuse Marx's theory of capitalist competition with the neoclassical theory of perfect competition.

This unfortunate conflation of Marx with orthodox theory and the subsequent invalidation of Marx's theory of competition as historically outdated has been accomplished in two consecutive steps. The first step is the largely unsubstantiated assertion that Marx's own analysis of highly competitive industries begins – just as in neoclassical theory – with the assumption of tiny, price-taking firms. This initial assertion is clearly demonstrated in the following statement by Paul Sweezy, one of the chief architects of the theory of monopoly capital.

The normal functioning of the law of value presupposes competition among many units of capital, each too small in relation to the market in which it operates to have significant influence on the selling price. In these circumstances, the way to survive and expand is to turn out a better product at lower cost ... With lower average costs the value of the product declines, and as output increases price also falls toward a new equilibrium between value and price ... The point is that adjustments are effected through the mechanism of fluctuations of price (hence also of profit rates), which are caused not by the deliberate action of the producers but by the changed conditions of supply and demand. This reasoning in support of the theory of value was, of course, not original with Marx; it was part and parcel of classical political economy going back to Adam Smith and even earlier.⁶

6 Sweezy 1981, pp. 41–2.

Once it is assumed that Marx's logical and historical starting point is identical to perfect competition, it is then a very simple matter to conclude that Marx's analysis of the 'competitive stage' of capitalism is no longer relevant to the modern capitalist economy.

At a certain point in the unfolding of the concentration – centralization process, the assumption that individual producers are too small to exercise a significant influence on the prices of their products loses its justification. When this happens in sectors of the economy that together dominate the functioning of the system as a whole, capitalism has passed from its competitive to its monopoly stage.⁷

Thus, just as perfect competition was forced to give way to imperfect competition within neoclassical economics, the competitive stage must give way to the monopoly stage within Marxian economics.

Finally, in Baran and Sweezy's influential work, *Monopoly Capital*, Marx's 'analytical method' is ironically invoked in order to relegate his theory of competition to the annals of the history of economic thought.

If we are to follow the example set by Marx and make full use of his powerful analytical method, we cannot be content with patching up and amending the competitive model which underlies his economic theory. We must recognize that competition, which was the predominant form of market relations in nineteenth-century Britain, has ceased to occupy that position, not only in Britain but everywhere else in the capitalist world.⁸

The Emerging School of Classical Marxist Economics

Although a large number of Marxist and radical economists have continued to assume that Marx's analysis of highly competitive markets is quite similar to

⁷ Sweezy 1981, p. 42.

⁸ Baran and Sweezy 1979, p. 6. In *Monopoly Capital*, Baran and Sweezy position themselves even more closely to neoclassical theory by suggesting that 'the appropriate general price theory for an economy dominated by such corporations (i.e., oligopolies) is the traditional monopoly price theory of classical and neo-classical economics' (Baran and Sweezy 1966, p. 59). The implicit and sometimes explicit acceptance of the theory of perfect competition by many Marxist economists has also been repeatedly demonstrated in recent debates over Marx's law of the falling rate of profit (see Shaikh 1978, 1980b, 1982a; Armstrong and Glyn 1979; Roemer 1979; and Van Parijs 1980). For a more historical account of the origins of the monopoly capital school within Marxian political economy, see Semmler 1984.

the theory of perfect competition, an emerging group of writers has begun to argue that a more careful investigation of his writings reveals an analysis of capitalist competition that is quite distinct from neoclassical economics. As Marx's arguments are more carefully developed and extended, it is becoming increasingly apparent that his theory of real capitalist competition is diametrically opposed to neoclassical theory on virtually every level – logically, historically, and empirically. It is to this more recent (yet more classical) interpretation of Marx's analysis that we will now turn.⁹

Unlike neoclassical economics, Marx did not and could not logically begin his analysis of the capitalist mode of production with an analysis of competition – perfect or otherwise. On the contrary, the dynamics of capitalist competition had to be *derived* from the laws of capitalist accumulation. As Marx noted in the *Grundrisse*, 'Competition is nothing other than the inner nature of capital, its essential character, appearing in and realised as the reciprocal interaction of many capitals with one another, the inner tendency as external necessity'.¹⁰ We are also repeatedly warned that 'a scientific analysis of competition is not possible, before we have a conception of the inner nature of capital'.¹¹

Because Marx begins from the vantage point of the laws of accumulation, the logical development of his analysis of capitalist competition compels him to begin not with the mythical tale of infinitesimally small firms, but with large-scale production. Chapter 3 has already explained that Marx's discussion of the general law of capitalist accumulation depends heavily on the observation that the capitalist production process was becoming increasingly mechanised and more and more capital-intensive. Equally important, Marx argues that the laws of absolute and relative surplus value do not really come into their own until the industrial revolution (or 'Modern Industry') calls forth a qualitative leap in mechanisation and its accompanying levels of fixed capital investment.¹² Within the growing factory complexes that marked the industrial revolution, it was the development of automatic machinery that finally allowed capital to place the labour process on an increasingly 'objective' basis.¹³ Moreover, it was the very same process of increasing mechanisation that enabled capital to 'celebrate its orgies' within the labour market through the continual reproduction of the reserve army of labour (see chapter 3 above). Finally, the development

9 See Clifton 1977; Shaikh 1978, 1980b, 1982a, 2008, 2016; Weeks 1981; Semmler 1984; and Moudad et al. 2013.

10 Marx 1973, p. 414.

11 Marx 1967a, p. 316. See also Semmler 1984 and Weeks 1981.

12 Marx 1967a, part 4.

13 Marx 1967a, chapter 15.

of large-scale industry also sounded the death knell for many of the remaining vestiges of the feudal mode of production – petty commodity production, small-scale agriculture, and the domestic economy.

Thus, for both logical and historical reasons, Marx's analysis of capitalist competition could hardly begin by abstracting from large-scale production. Quite the contrary, the presence of these large masses of fixed capital was one of the most essential and most distinctive characteristics of the capitalist mode of production.¹⁴

Given this vantage point, Marx's analysis of highly effective competition was forced to take on a very distinctive character right from the beginning. Within the context of large-scale enterprise, the relentless drive to expand capital value is necessarily accompanied by a growing struggle over market shares. These two dynamics, accumulation and rivalry, are inextricably bound up with one another.

[I]t is in the nature of capitalist production that: 1. each particular capital operates on a scale which is not determined by individual demand ... but by the endeavor to realise as much labour and therefore as much surplus-labour as possible and to produce the largest possible quantity of commodities with a given capital; 2. each individual capital strives to capture the largest possible share of the market and to supplant its competitors and exclude them from the market – *competition of capitals*.¹⁵

How is this struggle to 'supplant' and 'exclude' competitors to be fought out? Although Sweezy and many others have argued that Marx assumes passive, price-taking behaviour on the part of competitive firms, numerous passages within Marx's writings suggest otherwise.

The one capitalist can drive the other from the field and carry off his capital only by selling more cheaply. In order to sell more cheaply without ruining himself, he must produce more cheaply, i.e., increase the productive force of labour as much as possible.¹⁶

14 In the process of drafting the third volume of *Capital*, Marx noted that the 'last thirty years' had produced an 'enormous mass of fixed capital' even aside from the actual machinery that had been developed (Marx 1967c, p. 233). For further comments on the critical importance of fixed capital, see Marx 1973, 1967a, and 1967b, chapters 8 and 9.

15 Marx 1968, p. 484.

16 Marx 1983, p. 40.

The battle of competition is fought by cheapening of commodities. The cheapness of commodities depends, *ceteris paribus*, on the productiveness of labour, and this again on the scale of production. Therefore, the larger capitals beat the smaller.¹⁷

Thus, the key weapon in the competitive 'battle' is the development of more efficient techniques of production, and the primary competitive strategy is to utilise these lower costs to 'drive the others from the field' by *actively lowering prices*. In order to understand why Marx argues that the innovating firm will generally find it both necessary and advantageous to cut prices, we must pursue this argument in more detail.

Within Marx's analysis, price-cutting is often required by the innovating firm because increased efficiency is generally achieved through larger scale production and significant increases in fixed capital costs. Thus, in order for the innovator to cover these rising fixed costs and enjoy the benefits of larger scale production, he will be forced to expand his level of output. Given that the innovator is not infinitesimally small to begin with, however, he will also be forced to *make room* for this expanded output within the marketplace. Thus, as Marx clearly notes, 'Other things being equal, his commodities can command a more extended market only by a diminution of their prices'.¹⁸

In one of his most detailed discussions of the pricing strategy of the low-cost producer, Marx also explains the following:

How will this capitalist act? He could keep on selling half a yard of linen at the old market price; but this would not have the effect of driving his opponents from the field and enlarging his own market. But his need of a market has increased in the same measure in which his productive power has extended. The more powerful and costly means of production that he has called into existence *enable* him, it is true, to sell his wares more cheaply, but they *compel* him at the same time *to sell more wares*, to get control of a very much *greater* market for his commodities, consequently, this capitalist will sell his half yard of linen more cheaply than his competitors.¹⁹

17 Marx 1967a, p. 626.

18 Marx 1967a, p. 317.

19 Marx 1983, p. 41.

In Marx's discussion, it is also important to recognize that price-cutting is not merely necessary in order to extend the market. Contrary to both neo-classical and monopoly capital theory, it can also be a highly effective competitive weapon that can inflict substantial, long-term damage on rival firms. Within the theory of perfect competition, we saw that price-cutting is not a rational competitive strategy because it is assumed that the innovating firm's cost advantage will be extremely short-lived as other firms immediately move to adopt the new technique. Within the real world and within Marx's analysis, however, the dynamics of technical change work very differently. And once again, these differences are largely due to the presence of substantial amounts of fixed capital investment.

Throughout *Capital*, Marx argues that the pressures of competition and the general laws of capitalist accumulation cause the methods of production to be continually revolutionised. Given the presence of fixed capital investment, however, new techniques cannot be immediately adopted by all firms in the industry.²⁰ Because fixed capital generally requires prolonged turnover periods, new techniques will be adopted primarily by those capitals that are in the best position to do so. Thus, although new capitals will enter the industry with 'state of the art' equipment and other existing capitals will gradually begin to replenish and expand their productive facilities with the latest techniques, older, less efficient capitals will also tend to live on for many years. This is particularly true within prolonged periods of rapid growth.

In further contrast to mainstream theory, Marx's argument also provides little reason to believe that these differential conditions of production will eventually disappear as the industry moves toward some magical state of long-run equilibrium. For, as older capitals are finally depreciated, they will be replenished with even more advanced techniques. In the meantime, new differentiations will have also developed among the more advanced capitals.²¹

Thus, within this dynamic analysis of technical change, the constant development of more efficient techniques causes a perpetual leapfrogging effect within the conditions of production of each industry. *Rather than creating identical firms, competition therefore creates a continual re-differentiation of the conditions of production.* Moreover, because competition within each industry also requires all firms to sell their products at roughly the same price, it also

²⁰ Marx 1967b, pp. 170–2.

²¹ As Shaikh has pointed out, the neoclassical notion of long-run equilibrium 'reflects the essentially static nature of neoclassical economics, and is impossible in Marx's analysis of the perpetually changing accumulation process' (Shaikh 1982a, p. 82).

results in the constant differentiation of profit rates.²² In general, those capitals with the most advanced techniques within each industry will tend to have greater fixed capital outlays, higher capital/output and capital/labour ratios, lower unit costs, and higher profit margins relative to other firms. And, as we shall see in a moment, the development of a successful price-cutting strategy by the low cost firms is also likely to produce higher profit *rates* as well.²³

Now that we understand that Marx's analysis of effective competition entails both significant cost differentials and prolonged turnover periods for fixed capital, we can begin to see why price-cutting can become a powerful competitive weapon in the hands of the low-cost producer. As the low-cost producer forces prices down to make room for its increased scale of output, it may also be able to inflict sustained damage to rival firms who are suffering from both higher unit costs and the inability to alter their plant and equipment in the near future. Thus, the innovating capital may eventually be able to make room for itself by extending the market as a whole and by expanding its own market share *at the expense of the market shares of less efficient capitals*.

When the low-cost firm initially lowers its price, certain competitive advantages immediately come into play. By initiating the price cut, the innovating firm is able to enhance its competitive position by clearly establishing itself as the most efficient producer within the industry and, in effect, the clear 'price leader'. To the extent that other producers are slow to react to the initial price decrease, the innovating capital can obviously utilise this position to capture a portion of its rivals' market shares.

In the longer run, this initial advantage will clearly become tempered as other capitals are eventually forced to cut their prices as well. Nevertheless, as these less efficient firms lower their prices, the penalty they will have to pay may be quite steep depending on their relative cost position within the industry. Given that many of these other capitals possess substantially higher unit costs due to older and less efficient plant and equipment, their profit margins and profit rates may become seriously compromised. Thus, contrary to orthodox theory, rival firms will *not* be able to retaliate with equal competence. In fact, as Marx often noted, the most marginal capitals may be 'forced to the wall'.

Of course, from the low-cost producer's perspective, things look very different. In the first place, do not forget (as both radical and neoclassical economists

22 For Marx's discussion of differential profit rates within industries, see Marx 1967c, pp. 138–9, 178–86, 197–8, 641–5.

23 Within this context, the profit *margin* is simply defined as the difference between unit price and unit cost. The profit *rate* is the yearly mass of profits divided by the firm's total capital outlay.

often do) that one of the key reasons for the initial decrease in price is to allow the innovating capital to increase its output and thereby defray its larger fixed capital outlays. Thus, although the lower price may cause substantial harm to the profit margins of its less efficient competitors, the innovator should be able to enjoy comfortable profit margins as it begins to take advantage of the benefits of larger scale production. Moreover, to the extent that its increasing capacity utilisation level is achieved at the expense of the utilisation levels of less efficient capitals, its initial cost advantage will be enhanced.

In fact, when prices do finally settle at a lower level to reflect the lower costs of production within the industry, it is quite possible that the innovator will not only continue to earn the highest profit *margins* in the industry, but the highest profit *rates* as well. For although the innovator may originally suffer from lower profit rates at the old market prices (given its higher unit investment costs), its lower unit prime costs and an aggressive pricing strategy may eventually allow it to seize the dominant profit rate position within the industry.²⁴

Continuing with the same line of reasoning, it is also important to recognise that if our innovator does have a significant cost advantage that can be sustained for some time, there is little reason for the innovator to fear that its lower price will precipitate a serious price war on the part of its less efficient competitors. On the contrary, the lower prices drop, the greater the relative advantage of the low-cost producer vis-à-vis other firms in the industry.²⁵ Thus, unless some of these less efficient capitals can manage to leap ahead of the innovator by developing more efficient techniques of production, it is far more likely that these capitals will ultimately be forced to suffer significant losses in the battle for market shares.

Finally, if the innovator's pricing strategy does allow it to seize a dominant position within the market, its lower unit costs and increased market share may allow it to enjoy a number of important, long-term advantages. Higher profit rates and profit margins will obviously provide it with greater internal funds for further accumulation and increased research and development. It may also be better able to pursue other competitive strategies such as vertical integration, advertising, and so on. Last, its low-cost position will enable it to become more insulated from rising supply costs and other potentially hazardous events

24 Contrary to Okishio (1961), this does not mean that the innovating firm will enjoy a higher rate of return relative to other industries. The above argument is developed in greater detail by Shaikh 1978, 1983b, 1987.

25 'Under such circumstances, the firms with the lowest unit costs have the greatest chance of survival precisely because price reductions damage the anticipated profit rates of the high cost methods more than those of the lower cost ones' (Shaikh 1987, p. 116).

within the ever changing marketplace.²⁶ Of particular interest to our argument concerning wage differentials, the low-cost firm will often be in a stronger position to absorb wage increases.

Comparing the above analysis of competitive markets to the neoclassical theory of perfect competition, it should be quite clear that Marx begins from an entirely different set of conditions and assumptions concerning the behaviour of highly competitive firms. Rather than the neoclassical world of tiny, passive price-takers, we discover large-scale enterprises engaged in pitched battles for market shares. As Shaikh has often pointed out, Marx's key metaphor for the interaction of competing capitals is nothing less than an all-out 'war'.²⁷

Concentration and Centralisation versus Monopoly Capital

Although we have now established that Marx's discussion of the competition of capitals clearly begins from a very different logical and historical starting point, there remains the highly controversial issue of whether Marx's analysis ultimately suggests any logical direction for the future development of capitalist competition. This issue will be addressed in some detail in this section.

Within the growing debate between monopoly theorists and the emerging school of classical Marxists, Sweezy and other monopoly capital theorists have conceded that Marx clearly did not attempt to develop a theory of monopoly capital. Nor did he suggest that such a theory would eventually become necessary.²⁸ Given that Marx clearly recognized that more and more industries were becoming increasingly dominated by decreasing numbers of large firms, this omission presents a serious anomaly for monopoly theorists who are attempting to suggest that their own theory logically flows from Marx's analysis. As writers within the more classical Marxist school have also pointed out, this anomaly becomes far more serious when it is recognised that Marx often seemed to suggest that competition would tend to grow *more intense* as the capitalist mode of production continued to develop.²⁹

In order to explain this disturbing omission, Sweezy and Foster have both argued that Marx was simply unable to anticipate the vast wave of merger movements at the turn of the century that ushered in the development of

26 For an interesting listing of the competitive advantages of the low-cost firm, see Michael Porter 1980, pp. 35–6.

27 Shaikh 1978, 1982a. 'Except in the periods of prosperity, there rages between the capitalists the most furious combat for the share of each in the markets' (Marx 1967a, p. 317). For other explicit references to competition as war, see Marx 1983.

28 Sweezy 1981 and Foster 1986.

29 See Marx 1973, 1967c; Clifton 1977; and Semmler 1984.

monopoly capitalism. They also suggest that Marx firmly believed that socialism would supplant the capitalist mode of production long before monopolies would come to dominate the economy.³⁰

Ultimately, however, the main theoretical attempt to reconcile Marx with monopoly theory has invariably been to claim that the logic of Marx's argument concerning the 'concentration and centralization of capital' clearly implies that as the majority of industries become increasingly characterised by small numbers of large firms, competition must eventually give way to monopoly.³¹ Thus, as Weeks has appropriately pointed out, these economists continue to maintain that Marx, like neoclassical economics, essentially had a 'quantity theory of competition'.³² Yet, as we will demonstrate, this contention actually flows from their own mistaken conflation of Marx with neoclassical theory, not from Marx's analysis of the concentration and centralisation of capital.

In order to argue that Marx viewed the number and size of firms within each industry (i.e. market structure) as a critical factor determining the degree of competition, monopoly theorists usually quote the following passage from volume 1 of *Capital*.

The battle of competition is fought by cheapening of commodities. The cheapness of commodities depends, *ceteris paribus*, on the productive-ness of labour, and this again on the scale of production. Therefore, the larger capitals beat the smaller. It will further be remembered that, with the development of the capitalist mode of production, there is an increase in the minimum amount of individual capital necessary to carry on a business under its normal conditions. The smaller capitals, therefore, crowd into spheres of production which Modern Industry has only sporadically or incompletely got hold of. *Here competition rages in direct proportion to the number, and in inverse proportion to the magnitudes, of the antagonistic capitals.* It always ends in the ruin of many small capitalists, whose capitals partly pass into the hands of their conquerors, partly vanish.³³

Of course, the key phrase throughout all of Marx's writings that has captured the attention of the monopoly theorists is the above suggestion that 'competition rages in direct proportion to the number, and in inverse proportion to the magnitudes, of the antagonistic capitals'. In order to understand what

30 See also Baran and Sweezy 1966.

31 See Baran and Sweezy 1966; Sweezy 1981; Edwards 1979; Howell 1982; and Foster 1986.

32 Weeks 1981.

33 Marx 1967a, p. 626, emphasis added.

Marx is really arguing here, however, it is necessary to locate the above sentence in its proper context.

Just before Marx makes this statement, he makes it quite clear that he is speaking about a specific situation of uneven development where Modern Industry 'has only sporadically or incompletely' gotten hold of certain spheres of production. Thus, while large-scale enterprise has conquered much of the economy, there are a limited number of backward and otherwise stagnant industries where small capitals with little access to credit may still have a fighting chance to survive.

It is 'here' that Marx proceeds to suggest that as many of these small capitals 'crowd into' these backward spheres, 'competition rages in direct proportion to the number'. Indeed, within these sectors with limited room for expansion, it is trivially true that the number of capitals will have an important effect on the intensity of competition.³⁴ Nevertheless, this does not at all imply that Marx is generally suggesting that one can simply use the number of firms in *any* industry across the economy – regardless of technical conditions, differential rates of growth, and so on – as a key indicator of the level of competition. This is clearly implied in neoclassical theory, but not in Marx.³⁵

Of course, Marx does ultimately suggest that 'in any given branch of industry centralisation would reach its extreme limit if all the individual capitals invested in it were fused into a single capital'.³⁶ Nevertheless, the suggestion that competition within an industry ultimately reaches its theoretical limit in monopoly is a far cry from arguing that any significant reduction in the number of capitals automatically lessens the level of competition.

34 For a more detailed description of these backward sectors, see Marx 1967a, chap. 15. In chapter 4 of this book, we have already described how the same process of uneven technical change often tended to crowd many workers into these same spheres. Thus, from the perspective of the labour market we saw that the combined forces of intensified capitalist competition and abundant excess labour supplies often led to brutal levels of super exploitation.

35 Contrary to conventional wisdom, it is also interesting to note that neither Smith nor Ricardo relied on the number of capitals within an industry as a key factor determining the level of competition. As McNulty has pointed out, "Although Smith specified that competition would be more active, the greater was the number of competitors, the essence of competition in duopoly was evidently what it was in any other market structure, namely, the attempt to undersell one's rival in the market by lowering price" (McNulty 1967, 397). For further comments on the critical differences between classical and neoclassical theories of competition, see Semmler 1984, Eatwell 1982 and Shaikh 2016.

36 Marx 1967a, p. 627.

With regard to the second issue of the ‘magnitude’ of capitals within each industry, the possibility still remains that Marx is suggesting that competition will generally diminish as capitals grow larger. Once again, however, we must be careful about generalising from one isolated statement within a very specific context. In the above passage, Marx may be simply suggesting that as larger, more efficient capitals engage in competition with numerous smaller capitals, there will not be much of a contest. More important, many other passages within Marx’s writings suggest that competition will clearly tend to *increase* as the capitalist mode of production further develops. In one of his most revealing discussions of competition, Marx gives a number of compelling reasons to believe that competition will tend to intensify as capitals grow larger.

No matter how powerful the means of production which a capitalist may bring into the field, competition will make their adoption general ... [B]ut since he must find a market for perhaps a thousand times as much, in order to outweigh the lower selling price by the greater quantity of the sales; since now a more extensive sale is necessary ... in order to replace the cost of production, ... and since this more extensive sale has become a question of life and death not only for him, but also for his rivals, *the old struggle must begin again, and it is all the more violent the more powerful the means of production already invented are.*³⁷

Finally, in the next two sections, Marx’s distinctive views on the growth of fixed capital and on the inherent instability of price collusion should make it increasingly clear that the logic of monopoly capital is simply not to be found in Marx.

Fixed Capital and the Notion of ‘Barriers to Entry’

In sharp contrast to neoclassical theory, Marx’s analysis of competition does not suggest that rising amounts of fixed capital will automatically lead to rising ‘barriers to entry’.³⁸ As the first sentence in the previous quote indicates, no matter how large the capital requirements within an industry become, ‘competition will make their adoption general’. Thus, for Marx, fixed capital requirements must not be considered in absolute terms, but in relative terms with other capitals within the industry and the economy as a whole. In addition, as capital requirements increase throughout the economy, this simply means that

37 Marx 1983, p. 43, emphasis added.

38 Clifton 1977, 1983; and Semmler 1984.

the necessary armaments for waging a successful competitive battle are also increasing. Thus, although a growing number of relatively small capitals will be forced to the wall, those larger capitals that continue to survive and expand will continue to do battle on an ever enlarging scale.

Indeed, despite the continual growth of fixed capital over time, Marx clearly argues that the barriers to the mobility of capital will tend to be increasingly *broken down* as capitalism develops. In reference to the equalisation of profit rates and the mobility of capital across various industries, Marx notes the following:

Capital succeeds in this equalisation, to a greater or lesser degree, depending on the extent of capitalist development in the given nation; i.e., on the extent the conditions in the country in question are adapted for the capitalist mode of production.³⁹

In addition to the increasing erosion of the old feudal monopolies, one of the key factors that greatly enhances the mobility of capital is 'the development of the credit system which concentrates the inorganic mass of the disposable social capital vis-à-vis the individual capitalist'.⁴⁰ Another critical process which increases competition as the system develops is capital's growing ability to gain access to large pools of undifferentiated labour power.⁴¹ As noted in chapter 3, the very same processes that raise the level of fixed capital investment also increasingly deskill workers and generate the reserve army.⁴²

Marx on the Stability of Price Collusion

The only remaining possibility for monopoly theorists to claim that the concentration and centralisation of capital must inevitably lead to monopoly comes, once again, from the neoclassical theory of competition. Just as in the theory of imperfect competition, the monopoly capital school argues that the development of highly concentrated industries will eventually cause price-cutting behaviour to be replaced by various forms of direct and indirect price collusion.⁴³ Yet, once again, a careful reading of Marx's arguments reveals a very dis-

39 Marx 1967c, p. 196.

40 Ibid. For a modern extension of Marx's argument, see Clifton 1977.

41 Ibid.

42 For an interesting discussion of the importance of the access to labour power for ongoing capitalist competition, see Weeks 1981.

43 Edwards 1979; Sweezy 1981; and Foster 1986.

tinct break from the conventional wisdom. Indeed, he presents several important reasons to be highly sceptical of the long-term possibilities of stable price collusion.

Although Marx clearly understood that firms would often attempt to collude when market conditions provided favourable grounds for such behaviour, there are two key forces that continually militate against stable collusive agreements. The first of these disruptive factors is technical change. As already explained, as long as cost differentials are continually reproduced within an industry, there will always be strong motivation for the low-cost producers to break from the pack. This is particularly true when the conditions of supply and demand are no longer in favour of the producers. As Marx points out:

The common interest is appreciated by each only so long as he gains more by it than without it. And unity of action ceases the moment one or the other side (buyers or sellers) becomes the weaker, when each tries to extricate himself on his own as advantageously as he possibly can. Again, if one produces more cheaply and can sell more goods, thus possessing himself of a greater place in the market by selling below the current market-price, or market-value, he will do so, and will thereby begin a movement which gradually compels the others to introduce the cheaper mode of production.⁴⁴

The second force that regularly militates against collusion is the continually recurring industrial cycle. With each significant downturn, Marx argues that normal rivalry is transformed into 'the most furious combat' over market shares.⁴⁵ Thus, the normal pressures on the low-cost producer to cut prices are greatly enhanced.

Finally, although monopoly capital theorists often suggest that large amounts of fixed capital investment are generally conducive to price collusion,

44 Marx 1967c, p. 194. Within the field of industrial organisation, it is also well known that cost differentials do not provide fertile ground for price collusion (Shepherd 1985 and Scherer 1970). As F.M. Scherer points out in his study of industrial pricing, 'Generally, the more cost functions differ from firm to firm, the more trouble the firms will have maintaining a common price policy, and the less likely joint maximization of profits is ... A dynamic corollary of the proposition just stated is self-evident ... The more rapidly producers' cost functions are altered through technological innovation, and the more unevenly these changes are diffused throughout the industry, the more likely conflict in pricing actions is' (Scherer 1970, p. 64).

45 Marx 1967a, p. 317.

the empirical evidence for this contention is not clear. In fact, in his study of industrial pricing, Scherer argues that 'there is evidence that industries characterized by high overhead costs are particularly susceptible to pricing discipline breakdowns when a cyclical or secular decline in demand forces member firms to operate well below designed plant capacity'.⁴⁶ Thus, once again, Marx's suggestion that expanding large-scale capitals must increasingly struggle to make room for themselves within the marketplace appears to remain quite useful even within the modern economy.

Summary

Summarising the most distinctive elements of Marx's analysis of competition within industries, we now have the following points:

1. Marx's analysis of competition is derived from the laws of capitalist accumulation. Hence, the logical starting point is with large-scale enterprise. Moreover, ongoing accumulation requires most capitals to continually 'make room' for their expanding output. Competition therefore results in a contentious battle over market shares which intensifies as combatants grow larger. The key weapon in this battle is a more efficient technique of production, and the key strategy is to lower prices and drive less efficient capitals to the wall.
2. Given prolonged turnover periods for fixed capital, competition and technical change results in the continual re-differentiation of profit rates within each industry. Capitals with advanced techniques tend to have greater fixed capital outlays, higher capital/output and capital/labour ratios, lower unit costs, and higher profit margins. As prices are driven down, they are also likely to enjoy higher profit rates.
3. Although fixed capital investment increases with accumulation, this does not imply the notion of 'rising barriers to entry'.

Competition between Industries

In neoclassical theory the assumptions of perfect competition imply that profit rates will not only be uniform within each industry, but across industries as well. Given the idealised assumptions of perfect information and perfect mobility of capital, if the profit rate in any particular industry should deviate

46 Scherer 1970, p. 64.

only slightly from the general rate, capital will immediately enter (or exit) the offending industry causing prices and profit rates to return to their normal equilibrium levels. Thus, once again, only minor short-run disturbances in the uniformity of profit rates are to be expected within highly competitive economies, and anything more than marginal disturbances must be considered evidence of the lessening of competition.

Although many Marxist and neo-Ricardian economists have suggested that Marx's analysis of competition between industries is essentially similar to neo-classical equilibrium analysis, whereby different rates of profit rapidly and smoothly converge toward the uniform rate,⁴⁷ Marx actually discusses a very different type of process with equally distinct results. Indeed, as shown below, Marx argues that capitalist competition produces a *tendency* toward the equalisation of profit rates that can only take place through the constant correction of substantial differentials in profit rates that often persist for several years. Thus, as Shaikh has suggested, the equalisation of profit rates is perhaps best described as a process of 'tendential regulation' that involves both constant differentiation and constant disequilibrium.

Tendential Regulation versus General Equilibrium

The Marxist notion of competition defines a process, not a state ... As in any turbulent process, there is never any state of equilibrium. Market prices and quantities are always varying in the face of a multiplicity of factors; at any instant of time, profit rates differ from industry to industry. Yet Marx (and the Classics too) argues that this ceaseless variation had an inner pattern; a pattern which was achieved *only* in-and-through these perpetual variations, and which would consequently only reveal itself in average movements. This pattern was the *tendency* towards equalization of profit-rates, so that market prices were understood to be *tendentially regulated* by prices of production, and market rates of profit to be tendentially regulated by the average rate of profit. Thus, prices of production were taken to form moving centers-of-gravity of actual market prices, over real periods of variation.

— ANWAR SHAIKH, 'Notes on the Marxian Notion of Competition'

47 As Semmler has pointed out, this type of formulation of Marx's theory of competition is often found within modern Marxist discussions that rely on linear production models (Semmler 1984, p. 9).

Unlike general equilibrium models, which suggest that capitalism can be usefully depicted as a well-orchestrated ballet, Marx argues that one of the most important characteristics of the capitalist mode of production is its essential anarchy: 'The point of bourgeois society consists precisely in this, that a priori, there is no conscious social regulation of production. The reasonable and the necessary in nature asserts itself only as a blindly working average'.⁴⁸ Without any advanced planning and in the midst of a great deal of uncertainty (rather than 'perfect information'), each private producer must nevertheless attempt to connect up with hundreds of other independent actors. Suppliers of the necessary inputs and buyers of the final product must continually be found, all hopefully in the right proportions that will allow for sustained reproduction. Because the capitalist economy is largely unplanned, however, this necessary regulation of the social division of labour can only take place 'behind the backs of the producers' through the constant correction of mistakes within the marketplace.

The fundamental mechanism for this process of tendential regulation is the 'law of value' which 'ultimately determines how much of its disposable working-time society can expend on each particular class of commodities'.⁴⁹ Abstracting from the more complex forms of value that are required as a result of capitalist competition, Marx initially explains how the social division of labour is regulated by the continual deviations of market prices from market values. Thus, for example, when too much (little) labour is devoted to a particular commodity relative to effective demand, this product's market *price* will drop below (rise above) its intrinsic market *value*, which is determined by the socially necessary labour time required to produce it. In turn, this drop (rise) in price will then cause less (more) labour to be devoted to this particular good in the next period. Marx repeatedly points out, however, that 'this constant tendency to equilibrium, of the various spheres of production, is exercised, only in the shape of a reaction against the constant upsetting of this equilibrium'.⁵⁰ Thus, 'supply and demand are always equated when the whole is viewed over a certain period, but only as an average of past movements, and only as the continuous movement of their contradiction'.⁵¹

48 Marx to Kugelmann, 11 July 1868, in Marx and Engels 1942, p. 245.

49 Marx 1967c, p. 356.

50 Ibid. Marx also argues that 'in the midst of all the accidental and ever fluctuating exchange-relations between products, the labour-time socially necessary for their production forcibly asserts itself like an over-riding law of Nature' (Marx 1967a, p. 75). For a useful discussion of the regulating role of the law of value, see Shaikh 1981a.

51 Marx 1967c, p. 190.

In the third volume of *Capital*, which deals more explicitly with the dynamics of capitalist competition, Marx goes on to explain that the process of allocating social labour is actually more complex. Given that capitalists are primarily concerned with the production of surplus value and not use values, the continual reproduction of the system also requires that each sphere of production must at least *tend to receive* an average rate of return. If prices tended to fluctuate around a commodity's intrinsic market value, however, industries that are relatively labour intensive (i.e. possess low organic compositions) would tend to earn above-average profit rates because they are exploiting larger proportions of living labour relative to their total capital investment. Thus, the equalisation of profit rates requires that 'prices of production' rather than market values must form the centre of gravity of market prices.⁵²

Yet, just as the social division of labour can only take place through the constant correction of mistakes, the equalisation of profit rates must similarly take place through the 'tendential regulation' of continual deviations of profit rates above and below the general (or average) rate. Thus, as Marx points out, 'the general rate of profit is never anything more than a tendency, a movement to equalise specific rates of profit'.⁵³ Moreover, 'the average rate of profit does not obtain as directly established fact, but rather is to be determined as an end result of the equalisation of opposite fluctuations'.⁵⁴

Finally, although these continual fluctuations in both market conditions and market prices are ultimately regulated by the law of value via Marx's 'prices of production', these prices of production are not points of convergence that act to dampen market fluctuations in the long-run. Rather, they are 'centres of gravity' around which prices 'continually fluctuate'.⁵⁵ Thus, as Semmler correctly points out, Marx's concept of long-run prices 'cannot be viewed as an equilibrium concept as formulated in neoclassical theory'.⁵⁶

Hence, in sharp contrast to neoclassical economics, Marx does not suggest that highly effective competition across industries will cause individual profit

52 'The prices which obtain as the average of the various rates of profit in the different spheres of production added to the cost-prices of the different spheres of production, constitute the *prices of production*' (Marx 1967c, p. 157). According to Marx, these prices of production are simply a more complex form of value that continues to be regulated by the direct and indirect labour requirements of the various commodities. See Marx 1967c, pp. 179–80.

53 Marx 1967c, p. 366.

54 Marx 1967c, p. 368.

55 Marx 1967a, pp. 178–9.

56 Semmler 1984, p. 24.

rates to smoothly converge toward the uniform rate. Rather, the equalisation of profit rates is a dynamic process that requires the constant convergence of profit rates as well as the continual *re-differentiation* of profit rates above and below the general rate. Indeed, within any given period of time, substantial differentials in inter-industry profit rates may persist for considerable lengths of time. In order to see why this is the case, we must delve further into Marx's analysis of the *real* process of capital mobility across industries.

Capital Mobility in the Presence of Fixed Capital Investment

Although we previously pointed out that Marx does not consider fixed capital to be a 'barrier to entry', it is critical to understand that the mobility of capital will be significantly conditioned by the technical structure of production within each industry. In volume 3 of *Capital*, Marx clearly points out that the movement to equalise profit rates will require different amounts of time for different industries depending on the level of fixed capital investment and other technical considerations.

Yet with respect to each sphere of actual production – industry, agriculture, mining, etc. – the transfer of capital from one sphere to another offers considerable difficulties, particularly on account of the existing fixed capital. Experience shows, moreover, that if a branch of industry, such as, say, the cotton industry, yields unusually high profits at one period, it makes very little profit, or even suffers losses, at another, so that in a certain cycle of years the average profit is much the same as in other branches. And capital soon learns to take this experience into account.⁵⁷

As Semmler has pointed out, although Marx certainly recognised that large fixed capital requirements may make it more difficult to enter certain industries even when profit rates were above the average, he also understood that these same conditions made it equally difficult for capitals *to exit* from these industries when profit rates fell below the average. Thus, rather than viewing large fixed capital requirements as a 'barrier' to competition, he perceived them as *conditions of entry and exit* that the competition of capitals must therefore take into account.⁵⁸

57 Marx 1967c, p. 208.

58 'The fluctuations of profit caused by the cycle of fat and lean years succeeding one another in any given branch of industry ... must receive due consideration' (Marx 1967c, p. 208). See also Semmler 1984.

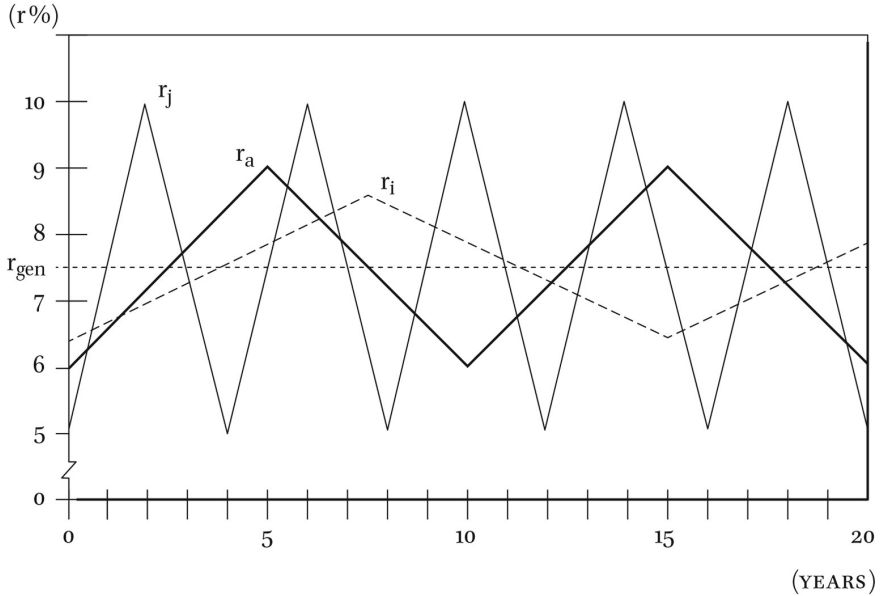


FIGURE 5.1 *Equalisation of Profit Rates across Industries*

In order to develop a more detailed argument of how these cycles of fat and lean years will tend to operate within the dynamic equalisation of profit rates, let's briefly consider three different types of industries:

Industry (A) with an average level of fixed capital investment

Industry (I) with very heavy fixed capital investment

Industry (J) with very little fixed capital investment

Abstracting from any long-run trend in the general rate of profit (r_{gen}), the cyclical movements in the rate of profit for the average firm within each industry ($r_{a,i,j}$) might display patterns similar to those depicted in figure 5.1.

Because Industry (A) represents the average level of fixed capital investment for the economy as a whole, we have constructed its cycle of fat and lean years so that a full cycle takes approximately ten years. In the literature on business cycles, the ten-year cycle is a generally recognised phenomenon within capitalist economies which is often referred to as the Juglar Cycle. Although the underlying causes of this cycle are still disputed, there is some evidence that it may be tied to investments in fixed capital.⁵⁹ In figure 5.1 this cycle provides us with a useful standard frame of reference.

59 Schumpeter 1939.

As noted earlier, given that industry (1) requires very large amounts of fixed capital investment, capital will face considerable difficulties both entering and exiting. In fact, within many of these sectors it may take several years to bring a new plant on line. In order to build in more flexibility within these industries, firms will tend to maintain relatively large amounts of *reserve capacity*. Thus, if the demand for output should begin to increase, firms will simply enjoy above-average rates of profit as they make greater use of their reserve capacity. In order for new plants to be built, however, profit rates will have to rise above the general rate for longer periods of time so that investors can be fairly certain that an expansion of plant and equipment is truly warranted. Heavy depreciation charges will make it far more difficult to withdraw from these sectors should excess capacity develop as a result of unwarranted increases in physical capacity.

Of course, during downturns in the industrial cycle, the same technical considerations also imply that these industries will often experience prolonged periods of below average rates of return. As steel magnate Andrew Carnegie once pointed out:

[I]n enormous establishments with five or ten millions of dollars of capital invested and with thousands of workers, it costs the manufacturer much less to run at a loss per ton or per yard than to check his production ... Twenty sources of expense are fixed charges, many of which stoppage would only increase. Therefore, the article is produced for months and, in some cases that I have known, for years, not only without profit or without interest on capital, but to the impairment of the capital invested.⁶⁰

Thus, in industries with exceptionally heavy fixed capital investment, the cycle of fat and lean years that ultimately allows these capitals to achieve the general rate of profit will tend to be relatively lengthy, and significant deviations above and below the general rate can persist for several years. In fact, as shown in the graph, a complete cycle may take up to 15 years.

On the other hand, within far less capital-intensive sectors like Industry J, we would expect to see a very different profit rate cycle. Given that capital mobility will tend to be more rapid and far less costly, levels of reserve capacity will also tend to be far lower. Hence, significant deviations above the general rate will tend to elicit faster responses from capitals both within and without the industry. Indeed, it is quite likely that too much capital will enter, forcing

60 Cited in Edwards 1979, p. 41.

prices and profit rates *below* the average levels within a relatively short period of time. Because the process of withdrawing from these sectors also tends to be far less costly, however, the next turning point in the cycle will quickly follow. Thus, within light industries, we would generally expect to observe profit rate cycles that are more brief, and that exhibit deviations from the average profit rate that are more pronounced. Finally, if we had also included the agricultural sector within our graph, we would expect to find the highest degree of volatility in market prices and profit rates given the obvious difficulties of adjusting agricultural production to changing conditions within the marketplace.⁶¹

Thus, as figure 5.1 suggests, the presence of varying degrees of fixed capital investment implies that the equalisation of profit rates across these different industries will *necessarily* entail substantial differentials in profit rates. Moreover, in relatively short periods that do not fully allow for these various cycles of fat and lean years, it may be very difficult to discern any equalisation tendency whatsoever.

In the graph, for example, if our observation period were to begin in year four and end only seven years later, the rate of profit for Industry I would be consistently above the average rate for the economy as a whole. It would therefore be very easy to conclude that this sector was utilising some form of monopoly power in order to achieve these results. Yet, if we extend our investigation to include the following seven-year period, we would discover that the tendential regulation of profit rates now results in a sustained period of below average rates of profit for Industry I. Thus, over a sufficiently long period of time, a tendency to equalise profit rates across industries would actually be exhibited without ever experiencing 'equilibrium'.⁶²

In sum, Marx's analysis of competition warns us that we must allow for sufficient periods of time before we can attempt to assess whether or not certain branches of industry have been able to achieve sustained periods of above-average profit rates as a result of monopoly power. As we shall also see in the concluding section of this chapter, once the cycles of fat and lean years have been given 'due consideration', we may discover that a good deal of the 'evidence' of monopoly profits within the modern economy may actually be the result of real capitalist competition.

61 See Marx 1967c, pp. 118–21. See also Clifton 1983.

62 It is also important to note that within Marx's framework, highly capitalised industries that are in the process of dying may hang on for a good number of years with profit rates that are significantly below the general rate. In these situations, of course, the counteracting period of above-average rates of profit would not be forthcoming.

Toward a Competitive Theory of Administered Pricing

Over the past several decades, the use of target rates of return and other forms of 'administered pricing' procedures by large firms within concentrated industries has often been cited as evidence of the presence of monopoly power.⁶³ But, as Marx's analysis of capitalist competition has been further explored and extended by writers such as Shaikh, Semmler and Clifton, it is becoming increasingly clear that many of these administered pricing procedures can be directly anticipated within Marx's analysis of ongoing capitalist competition.

As demonstrated in the previous section, industries with heavy fixed capital investments tend to face significant difficulties adjusting their plant and equipment within short periods of time. Thus, in order to more quickly respond to constantly changing conditions within an uncertain marketplace, these highly capitalised firms will normally tend to rely on relatively large amounts of *reserve capacity*. At this point, however, it is important to understand that these substantial amounts of reserve capacity also suggest that industries with heavy fixed capital investments will tend to have more stable prices relative to industries that do not have to maintain these reserves. Within certain limits, cyclical fluctuations in market demand can be primarily absorbed through fairly rapid adjustments in capacity utilisation levels. Thus, pressure on market prices is significantly dampened. Furthermore, because these fluctuations in output levels tend to occur over a range of fairly constant unit costs, stable prices will also tend to result in stable profit margins.⁶⁴ By the same token, industries with relatively low levels of fixed capital investment and low reserve capacity will tend to experience relatively large fluctuations in both market prices and profit margins.

Thus, with a fairly straightforward extension of Marx's original argument, we can already begin to see that different degrees of stability in market prices and profit margins are not necessarily the results of varying degrees of market power. Interestingly, research into the historical development of administered pricing policies at General Motors and other large corporations strongly sug-

63 See Blair 1972 and Clifton 1983.

64 The presence of constant cost curves over normal operating ranges has been well documented by writers representing a number of different perspectives. See J. Johnstone 1960, pp. 136–48. Moreover, a similar argument concerning the relationship between reserve capacity and price stability can also be found in Kalecki (1943) and various post-Keynesian arguments (Eichner 1980). In many of these arguments, however, the maintenance of high levels of reserve capacity is considered to be part of the overall strategy of oligopolies that are attempting to erect barriers to entry. For a discussion of these alternative viewpoints, see Semmler 1984 and Shaikh 2016.

gests that administered pricing was primarily devised in order to allow these corporations to develop a more effective and more competitive pricing policy in the face of three key factors: (1) growing amounts of fixed capital investment; (2) continual fluctuations in capacity utilisation levels over the business cycle; and (3) the development of multiplant and multiproduct operations.⁶⁵

Given continual fluctuations in capacity utilisation levels, firms with large amounts of fixed capital investment had to develop a method of price calculation that would allow them to achieve a competitive rate of return over a protracted period of time. Summarising Donaldson Brown's original pricing formulations at GM, Clifton notes that these price calculations were performed in the following manner:

Base prices were calculated from historical data covering as many business cycles and different market conditions as experience allowed. From such data the normal characteristics of the market were calculated. Standard volume was an average production rate which was used as the basis for estimating standard costs. From this 'factory cost' a profit margin embodying the 'economic return attainable' was added to arrive at the base price.⁶⁶

It is also interesting to note that in his own articles, Brown clearly differentiated his policy of administered pricing from misguided attempts to *fix* prices at some predetermined level.

The pronouncement of a basic pricing policy, in terms of the economic return attainable, should be understandable as a policy, and should not be misapplied as a dictation of specific price. In other words, the impracticality of frequent adjustment of prices must be recognized, necessitating the maintenance of prices which at times may be above, and at other times below the base price equivalent ... If the prevailing price of product is found to be at variance with the base price equivalent, other than to the extent due to temporary causes, it must follow that prices should be adjusted.⁶⁷

65 Clifton 1983 and Semmler 1984.

66 Clifton 1983, p. 26. Consistent with the above argument concerning the need for capital-intensive industries to maintain sizable levels of reserve capacity, Brown suggested that the standard utilisation level for estimating 'normal' unit costs at GM should be at 80% of capacity (*ibid.*).

67 Cited in Clifton 1983, p. 27.

Because the above base policy was essentially an attempt to estimate the centre of gravity around which actual prices would tend to fluctuate, Clifton suggests that the development of administered pricing may very well represent 'the first institutional emergence of (Marx's) prices of production'.⁶⁸

Equal Profit Rates Require Unequal Profit Margins

Before proceeding to a discussion of Marx's concept of regulating capitals, there is one final distinctive element within Marx's analysis of competition between industries that needs to be considered. In contrast to the previous discussions, this element concerns profit *margins* rather than profit *rates*.

We have already shown that industries with relatively high levels of fixed capital investment will tend to possess relatively large reserve capacities and hence, more stable prices and profit margins. Because large fixed capital outlays tend to be highly correlated with both high capital/output ratios and high capital/labour ratios,⁶⁹ we can also show that many of these industries will also tend to require an assortment of above-average profit margins in order to achieve the average rate of return.

Within Marx's argument, the key rate of return that tends to be equalised across different industries is calculated by dividing the yearly mass of realised profits (π) by the total amount of capital investment (κ) that must be tied up within that same year. Thus, the rate of profit for each industry (i) can be expressed in the following manner:

$$r_i = \frac{\pi}{\kappa}$$

If we now simply divide through by total sales ($P \times Q$), we get the following:

$$r_i = \frac{\pi/PQ}{\kappa/PQ}$$

Thus, the rate of profit can also be expressed as the profit margin on sales over the capital/output ratio. From here, it is simple to see that if industries with varying capital/output ratios are going to receive an average rate of return, then those industries with relatively high capital/output ratios must also tend to earn relatively high profit margins on sales. Likewise, if we go back to our original expression for the rate of profit and divide through by total labour requirements, we can also show that industries with high capital/labour ratios

68 Clifton 1983, p. 30.

69 See Ornstein et al. 1973; Howell 1982; and Semmler 1984.

will require high profit margins per unit labour requirement. Finally, Semmler has also shown that corresponding results can be derived for the markup over prime cost.⁷⁰

Although all of these results can be derived directly from Marx's analysis of the equalisation of profit rates, numerous monopoly theorists like Kalecki have curiously suggested that 'high' markups over prime cost and high profit/wage ratios are key indicators of monopoly power. Moreover, high profit margins per unit labour requirement are often considered to be the monopoly basis for above-average wage rates.⁷¹ In Marx's analysis, however, this can by no means be assumed.

Summary

Summarising Marx's analysis of competition between industries, we now have the following:

1. The equalisation of profit rates between industries is a dynamic process of tendential regulation which must not be confused with static models of general equilibrium.
2. Given the presence of varying degrees of fixed capital investment across industries, conditions of entry and exit also vary significantly. Thus, the tendential regulation of profit rates will generally entail varying cycles of fat and lean years.
3. Because heavily capitalised industries require prolonged cycles, the tendency toward equalisation of profit rates is exerted over significant periods of time. Moreover, at any given moment, there will be substantial differentials in profit rates across various industries.
4. Industries with relatively high levels of fixed capital investment, high capital/output ratios, and high levels of reserve capacity will tend to experience:
 - prolonged periods of above-average profit rates, followed by sustained periods of below average profit rates
 - more stable prices
 - relatively high profit margins on sales
 - relatively high profit margins per unit labour requirement

⁷⁰ Semmler 1984, p. 147.

⁷¹ See Kalecki 1943; Katz 1986; and chap. 2 above.

Once again, the contrast between Marx and neoclassical theory is quite pronounced. From within the framework of perfect/imperfect competition theory, the empirical evidence of strong correlations between high capital/output ratios and high levels of fixed capital investment, on the one hand, and above-average levels of reserve capacity, high profit margins, more stable prices, and prolonged periods of above-average profit rates, on the other hand, are generally considered to be strong evidence of monopoly. Yet, within Marx's theory of competition, all of these results can be directly derived from competition between and within industries.

Marx's Concept of Regulating Capitals

The previous section explained Marx's suggestion that there will be a long-run tendency toward the equalisation of profit rates across industries. Within industries, however, competition will continually produce differential profit rates due to the constant presence of differential conditions of production. In order to complete Marx's analysis of competition between and within industries, we must now attempt to integrate these two different levels of analysis.⁷²

Although many writers have tended to assume that Marx's discussion of competition between and within industries was essentially completed in chapters 8–10 of *Capital*, volume 3, Shaikh has persuasively argued that Marx's analysis remains at a fairly high level of abstraction. This is primarily because Marx does not entirely integrate the differentiation of capitals *within* industries with the equalisation of profit rates *across* industries when he develops his discussion of the transformation of values into prices of production. Indeed, throughout the entire discussion of the formation of prices of production (chapters 8 and 9), Marx essentially abstracts from the differentiation of capitals within each industry by dealing only with the 'average' conditions in each sphere. Thus, at this level of Marx's discussion, it is these average conditions that form the basis for the prices of production, and hence, the equalisation of profit rates.

It is not until chapter 10 that Marx develops a detailed analysis of the differentiation of capitals within industries. But, although Marx provides us

72 The following argument concerning Marx's discussion of 'regulating capitals' was derived primarily from Anwar Shaikh's unpublished lectures in Advanced Political Economy, New School for Social Research, 1980–1 (cited as Shaikh 1981b). Readers of this new edition should see Shaikh's extensive discussion of Marx's concept of regulating capitals and capitalist competition in general in Shaikh 2016.

with a very useful discussion of the differences between individual value, market value, and market price, he does not really bring this discussion back into the equalisation process across industries. In fact, it is only in the last three pages of this chapter that Marx fleetingly attempts to integrate these two different levels of analysis. In summary fashion, Marx merely notes that the equalisation of profit rates will occur in the following manner:

Capital withdraws from a sphere with a low rate of profit and invades others, which yield a higher profit. Through this incessant outflow and influx, or, briefly, through its distribution among various spheres, which depends on how the rate of profit falls here and rises there, it creates such a ratio of supply to demand that the average profit in the various spheres of production becomes the same, and values are, therefore, converted into prices of production.⁷³

If we now try to further concretise the above process of equalisation by accounting for differential conditions of production within each industry, we confront a number of difficult questions. Within each industry, we know that competition requires similar products to be sold at roughly the same price. Yet this uniform price implies that capitals with different cost structures will also have different profit rates and profit margins. As capital flows between industries and prices fluctuate according to the movements of supply and demand, *around which conditions of production* within each industry will prices tend to gravitate? Or more specifically, which conditions will become the *regulating conditions* that will tend to achieve an average rate of return relative to other industries?

At a fairly high level of abstraction in chapter 9, Marx assumes that the *average* conditions of production will achieve the general rate. Yet, although this assumption certainly allows Marx to provide his readers with a simple and direct way of demonstrating how prices of production are ultimately regulated by the law of value, it does not give us a useful answer to the more concrete (and hence more complex) questions posed above. As Shaikh has pointed out, once we attempt to move to a more concrete level of analysis, we must also recognise that the actual process of equalising profit rates and the ultimate regulation of prices of production by the law of value become considerably more complex.

73 Marx 1967c, p. 195.

The following hypothetical illustration should help to demonstrate this point more clearly. Let us assume that the profit rates for most capitals within the US auto industry are substantially above the profit rates of other industries across the economy. As Marx suggests in the above passage, these excess profit rates will tend to generate an accelerated flow of capital into the auto industry and hence, a lowering of prices and profit rates as supply tends to grow faster than demand. The critical question now becomes: What kinds of capital will tend to be expanded within this industry and therefore act to regulate the flow of supply?

For instance, will new entering capitals simply attempt to duplicate the conditions of the 'average capitals' with the average rate of profit within the industry (i.e. Ford or GM)? Or will they attempt to duplicate the most advanced conditions of production that can be readily reproduced and that may allow them to achieve profit rates that are above the average conditions (i.e. Honda and Toyota)? It becomes obvious that new capitals will attempt to reproduce the latter methods which are the 'best practice techniques' since they are clearly the most cost efficient and therefore the most competitive. Thus, as these new capitals flow into the industry and prices and profit rates begin to decline, supply will continue to increase at an accelerated pace until *these capitals* with the best practice techniques achieve a rate of profit that is equal to similar opportunities in other industries. Or, in other words, it is the 'best-practice' conditions of production that are generally reproducible, and not necessarily the 'average' conditions, that will tend to regulate the centre of gravity for price fluctuations. At this more concrete level of analysis, it is therefore these best practice capitals that become the *regulating capitals*. And it is the profit rates of the regulating capitals across each industry that will be 'tendentially equalized'.⁷⁴

Although Marx does not clearly develop the above argument in chapter 10 of *Capital*, volume 3, he does make a very similar argument concerning 'regulating conditions of production' when he further concretises his analysis of competition to investigate the determinations of differential and absolute rent. Here Marx presents a very detailed argument for why the regulating conditions of production will *not* be the average conditions, but the best practice conditions on the worst land that is required for supply.⁷⁵

The only significant difference in agriculture as opposed to manufacturing is that the natural limitations of the land force some capitalists to engage in

74 Shaikh 1982a, p. 77; 2008, 2016.

75 See Marx 1967c, pp. 640–737. See also Shaikh 1981b, 2008, 2016.

production on the worst available land in order to meet the needs of the market. Thus, prices must continually adjust to allow the best practice conditions on the marginal land to achieve the average rate of profit.

Abstracting from this essential difference, *the general point is that once we allow for the differentiation of capitals within either agriculture or manufacturing, it is the best practice technique that is generally reproducible which becomes the regulator of supply and hence, the centre of gravity for price fluctuations.* It is these capitals that will therefore tend to achieve a rate of profit equal to that of regulating capitals in other industries. And it is the cost structure of the regulating capitals that becomes the practical standard for each industry and the basis for the competition of capitals. Thus, as Shaikh points out, 'The theory of ground rent is therefore a special case of the theory of intra-industry competition'.⁷⁶

The concept of regulating capitals has a number of important implications for the empirical investigation of differential profit rates between and within industries. Within each industry, for example, it is important to recognise that the regulating conditions of production will generally *not* be equal to the industry's average conditions of production. Thus, the regulating rates of profit within each industry will also tend to diverge from the average rate of profit for the industry as a whole. In order to anticipate the direction of these potential deviations, we must separate the case of manufacturing from mining and agriculture.

Within each manufacturing industry, we have already explained that there will generally tend to be a range of differential profit rates due to the coexistence of different sets of plant and equipment of varying age and efficiency. In certain industries, a small number of capitals may also enjoy special advantages over other capitals through trade secrets, or special locations that reduce transportation costs, and so on. Because these advantages are not generally reproducible, these capitals may therefore enjoy profit rates that are persistently above those of the regulating capitals within the industry. On balance, however, the existence of far greater numbers of capitals of older vintages that

76 Shaikh 1982a, p. 82. In terms of value theory, it is important to point out that the equalisation of the regulating (as opposed to the average) rates of profit across different industries implies that this more complex form of the general rate of profit will not necessarily be equal to Marx's original value rate of profit. Shaikh (1982b) has shown that when the regulating conditions of the overall economy are more (less) efficient than the average conditions, the regulating rate of return will tend to be above (below) the value rate of profit. Although the regulating rate of profit may be either above or below Marx's value rate of profit, however, the law of value remains the ultimate regulator of these deviations.

are suffering from profit rates that are significantly below the regulating rate of profit will generally cause the 'average' profit rate for the industry as a whole to be slightly *below* the industry's regulating rate.

Within agriculture and mining, the opposite situation tends to occur due to the presence of substantial differential rents. Indeed, if many capitalists within these sectors do not have to relinquish their differential rents to a third party (i.e. a landowner), then the average rate of profit within these sectors may be significantly *above* the industry's regulating rate of profit, which is generally determined by the best practice techniques on the marginal land.⁷⁷

Given that the regulating conditions of production will generally not be equal to the average conditions of production within each industry, the equalisation of *regulating* rates of profit across the economy does not necessarily imply that average rates of profit for each industry will tend to be equalised. As suggested earlier, the average rate of return in many agriculture and mining sectors may be substantially above the average rates of return in many manufacturing sectors due to the incorporation of differential rents. (Differential rents may also be an important factor in certain manufacturing sectors where firms are vertically integrated into raw materials production.)

Finally, if the regulating conditions of production in a particular industry are located outside of the region (or nation) being investigated, the average rate of profit for that national industry may not display any tendency to be equalised with the general rate of profit even over long periods of time. Thus, within the framework of regulating capitals, it is particularly important to recognise that an 'industry' is not merely any arbitrary collection of national capitals that are producing a certain type of product. On the contrary, it must be defined by the entire set of competing capitals within the world industry as a whole.

For all of the above reasons, empirical investigations attempting to utilise Marx's analysis of competition between and within industries must be careful to distinguish which profit rates are being observed – individual, regional industry average, total industry average, or regulating. Furthermore, given the particular dynamics of the equalisation of *regulating* rates of profit, we must now be even more careful to remember that the appearance of persistent differential profit rates between and within industries is not necessarily evidence of monopoly power. Although evidence of the persistence of above-average rates

77 This is often the case in industries like oil production where companies frequently obtain long-term leases from the government at nominal rates. Although these above-average rates of return are technically differential rent in strict economic terms, they are generally reported as profits in accounting terms. For an interesting discussion of the oil industry from the perspective of regulating capitals, see Bina 1985.

of return is clearly necessary to argue for the existence of monopoly power, within Marx's framework it is far from sufficient.

Perhaps most critical for this book, we will soon see that the concept of regulating capitals will become a key element in our analysis of wage differentials. Indeed, within our discussion of competitive wage determination, the analysis of the cost structure and location of the regulating capitals within each industry will be pivotal in determining each industry's long-term ability to absorb rising wage rates. Contrary to the arguments of most radical and institutional economists, we will also argue that *all* viable industries ultimately possess the potential for significant wage increases as long as these increases are initiated within the regulating capitals of the industry in question. Thus, it is not monopoly power that primarily determines a particular capital's ability to incorporate higher wage rates, but its relative efficiency within the industry that is the crucial factor.

Empirical Evidence of Monopoly

Up until the 1970s, the dominant view within both neoclassical and Marxian economics was that the modern capitalist economy was becoming increasingly characterised by oligopolistic firms that were using their market power to set prices and profit rates significantly above competitive levels. One of the key empirical studies that was initially used to establish the evidence of oligopolistic pricing procedures was Gardiner Means's early investigation of administered pricing during the 1930s.⁷⁸ Means's study was then followed by other influential works that more directly attempted to link the phenomenon of administered pricing with monopoly power.⁷⁹ Of course, the other major source of evidence for increasing monopoly power was the growing number of studies which seemed to suggest that critical levels of market concentration were having a significant influence on differential profit rates across industries.⁸⁰

Given these and several other studies, the emerging consensus was that more and more key industries were becoming increasingly sheltered from the forces of outside competition by seemingly impenetrable 'barriers to entry'. Moreover, within these protective walls, oligopolistic firms were using increas-

⁷⁸ Means 1935.

⁷⁹ Kalecki 1943 and Blair 1974.

⁸⁰ Bain 1951; Stigler 1963; Weiss 1963; and Mann 1966.

ing levels of market power and various forms of price collusion to override (or at least greatly diminish) the internal forces of competition within their respective industries.

Since the 1970s, however, an increasing number of important developments in the world economy have begun to present some serious anomalies for this generally accepted wisdom. As the United States and many other capitalist nations entered a period of sustained stagnation and crisis in the early 1970s, the high profit rates of many 'core' firms no longer appeared to be above the discipline of the marketplace. On the contrary, the near bankruptcies of firms like Chrysler, International Harvester, and USX raised grave doubts about the 'eternal' stability and prosperity of core firms.

Even more problematic, intensifying international competition within heavy industrial sectors like auto and steel raised serious questions concerning the assumption of impenetrable 'barriers to entry' surrounding many of these 'oligopolistic' industries. During the 1960s and early 1970s, it had been generally assumed that economies of scale and carefully maintained 'excess' levels of plant capacity would provide fairly permanent protection for these industries. Yet in the 1980s and 1990s, firms from advanced capitalist nations like Japan and Germany effectively managed to shatter these barriers. Indeed, within the steel, auto, and computer industries, even newcomers from South Korea and Brazil have somehow managed to enter the fray with the invincible US giants.⁸¹

In addition to these developments in the world economy, more recent empirical research has also raised important questions concerning the market concentration doctrine. As Semmler has shown in his extensive survey of the empirical literature, serious questions have been raised concerning the so-called evidence both for oligopoly pricing practices and for the persistence of monopoly profit rates in concentrated industries.⁸²

Although the empirical challenge to the market concentration doctrine was initially issued by conservative neoclassical economists,⁸³ recent empirical and theoretical work by classical Marxist economists has also begun to batter away at the evidence of widespread oligopoly.⁸⁴ As discussed in the previous sections, a great many of the empirical patterns that have been interpreted as evidence of monopoly power are perfectly consistent with Marx's analysis of competition. Thus, whereas neoclassical theory tells us that strong correlations of high levels of fixed capital investment with above-average levels of reserve

81 Craypo 1986.

82 Semmler 1974.

83 Brozen 1971a, 1973; Demsetz 1973; and Weston and Ornstein 1973.

84 Shaikh 1983a and Semmler 1984.

capacity, high profit margins, more stable prices, and prolonged periods of above-average profit rates are clear indicators of monopoly, Marx suggests that these patterns are generally to be expected from ongoing competition and accumulation.

In order to briefly review some of the most important empirical work within this growing debate, we will be relying heavily on Semmler's extensive study.⁸⁵ As in Semmler's study, we will break up our empirical discussion into two main parts. The first section will be concerned with the empirical evidence (or lack thereof) for oligopolistic pricing procedures. The following section will then address the evidence of persistent differential profit rates across concentrated and unconcentrated industries.

Evidence of Differential Pricing Behaviour

Within both post-Keynesian and monopoly capital arguments, it is generally assumed that the simultaneous development of decreasing numbers of large firms along with rising barriers to entry has enabled many of these large firms to utilise pricing procedures that are quite distinct from the more competitive sectors. Within this world of market power and various forms of direct and indirect collusion, three key types of distinctive pricing behaviour are often predicted. First, it is generally assumed that core firms possess the ability to pass on rising material and labour costs in higher prices far more rapidly and more extensively relative to competitive sectors. Second, it is often implicitly suggested that price levels within monopolistic industries will tend to rise more rapidly over time relative to competitive sectors.⁸⁶ Finally, it is argued that oligopoly prices will tend to be less responsive to short-run changes in conditions of supply and demand, particularly over the business cycle. (Here we are primarily referring to the well-known phenomenon of 'administered pricing').

Although the above three claims are often simply assumed within many Marxist and post-Keynesian discussions of the modern capitalist economy, Semmler's analysis of the relevant empirical literature raised serious doubts

85 Semmler 1984.

86 This argument is a key component in various explanations of the modern problem of stagflation. In monopoly capital arguments, it is often argued that the monopoly pricing power of oligopolistic industries has enabled these large firms to undermine government efforts to increase aggregate demand and output by transforming rising demand into rising price levels (Magdoff and Sweezy 1977). Moving in a slightly different direction, many post-Keynesians argue that the chronic inflation of the 1960s and 1970s was largely driven by the development of a wage-price spiral within the core (see Eichner 1979, 1980).

about the validity of at least two of these arguments. As we shall soon see, although there is some evidence for less flexible prices over the business cycle within concentrated industries, there is very little evidence to support the first two contentions.

Regarding the first assumption concerning the differential ability of core firms to pass along rising costs, this argument was repeatedly put forward by radical and institutional labour economists as one of the primary explanations for the persistence of differential wage rates between core and periphery industries (see chapter 2). According to Semmler's analysis, however, empirical studies investigating the effect of market concentration on the timing and magnitude of price increases (following cost increases) have revealed very mixed results at best. On the one hand, studies by Ripley and Segal, Lustgarden, and Wilder et al. curiously indicate that concentrated industries generally pass on a *smaller* proportion of cost increases in higher prices – particularly in the case of rising unit labour costs.⁸⁷ On the other hand, a study by Yordon appeared to indicate that the degree of concentration had no significant effect on the rate of price increases in response to cost changes.⁸⁸ Finally, empirical investigations by Weiss and Dalton suggested that industrial concentration does have a positive effect on price changes.⁸⁹

Summing up these divergent results, Semmler suggests that these discrepancies may be partially due to different time periods observed. Of greater importance, he also points out that most of these studies (with the exception of Dalton and Lustgarden) may be seriously biased by their failure to measure both unit material costs and unit labour costs *in relation to total costs*. Given that concentrated industries also tend to have above-average capital/labour ratios and above-average capital/output ratios, empirical studies that fail to properly weight these cost factors will artificially result in lower price increases within concentrated industries. As Semmler explains:

Under the assumption of markup pricing, a given percentage of wage or material cost increase shows up as a lower increase in prices in industries where the ratio of labour input to output and/or the ratio of material

87 Ripley and Segal 1973; Lustgarden 1975; and Wilder et al. 1977. Although Lustgarden discovered that wage rates within concentrated industries clearly rose more rapidly relative to unconcentrated industries, he found that productivity also rose more rapidly. He therefore concluded that 'relatively greater productivity in concentrated industries led to relatively lower unit labour costs and relatively lower prices' (Lustgarden 1975, p. 32).

88 Yordon 1961.

89 Weiss 1966b and Dalton 1973.

input to output is below the average and the ratio of capital to output (capital output ratio) is above the average. But these are only the direct effects of wage or material cost increases in industries with different input-output relations.⁹⁰

Given this problem of bias as well as the strong discrepancies in statistical results, Semmler concludes that the evidence of higher price increases in response to rising costs within concentrated industries is 'not very strong'.⁹¹ Clearly, far more extensive and more systematic research needs to be conducted.

With the appearance of the growing problem of chronic inflation in the late 1960s, several empirical studies were conducted to test the claim that high degrees of market concentration are a primary causal factor in the acceleration of inflation. Yet, once again, a careful review of the literature suggests that this widely held assumption among many radical, post-Keynesian and Marxist economists appears to have little empirical support. In an early study that observed price levels across fourteen US industries from 1947 to 1958, Yordon found that the level of market concentration appeared to have no significant effect on the rate of price change across varying industries. Thus, he concluded that 'on the whole, inflationary pressures seemed to be transmitted through the two groups of industries in a similar manner: prices were insensitive to demand changes, but were rapidly and fully responsive to cost increase'.⁹² Philips's study of price increases across three countries within the EEC discovered similar results.⁹³

Moreover, in an extensive analysis of the problem of persistent inflation, Philip Cagan concluded the following:

It is hard to see here an important role for concentration in the post war changes in price behavior ... The tendency of prices to respond less in successive recessions does not reflect the special behavior of highly concentrated industries, despite their weaker price response overall, but is a more general phenomenon.⁹⁴

Perhaps one of the most curious bits of evidence against the notion that price levels tend to rise more rapidly in oligopolistic industries is presented by Alfred

90 Semmler 1984, p. 88.

91 Semmler 1984, p. 89.

92 Yordon 1961, p. 287.

93 Philips 1969.

94 Cagan 1979, p. 90.

Eichner's own post-Keynesian analysis of the 'megacorp and oligopoly'. In his book by the same title, Eichner includes an extremely interesting graph, which has been reproduced below as figure 5.2. This graph compares movements in price levels across 'oligopolistic' and 'competitive' industries between 1965 and 1973.⁹⁵ Yet, although Eichner attempts to use figure 5.2 to support his claim that the 1960s inflation was primarily initiated by a wage-price spiral within the oligopoly sectors, the long-term price movements within this graph far more clearly reveal that price levels in oligopolistic industries do *not* rise faster than prices in competitive industries. Nevertheless, in partial support of the administered pricing argument, Eichner's graph does suggest that prices in concentrated industries do tend to be more stable over the business cycle. It is to this final question that we must now turn.

Unlike the previous two contentions of the monopoly theorists, there is strong evidence that price levels in concentrated industries have tended to be somewhat less responsive to changes in the business cycle relative to unconcentrated industries.⁹⁶ As Semmler quite correctly points out, however, the key question here is how we are to interpret these findings.

Within both post-Keynesian and monopoly capital arguments, the evidence of less responsive prices within concentrated industries is generally interpreted as evidence of monopoly pricing power. Indeed, just as these theories have predicted, it does seem to appear that core industries may be able to override short-run market forces by simply setting their prices to ensure target rates of return regardless of fluctuations in the business cycle.

As Semmler suggests, however, it is also possible to develop a different explanation for these varying degrees of price flexibility that has very little to do with monopoly pricing power. As Marx originally suggested many years ago, differential responses to changing conditions within the marketplace may simply be due to differential technical structures of production across varying industries. 'The average periods during which the fluctuations of market prices compensate each other are different for different kinds of commodities, because with one kind it is easier to adapt supply to demand than with the other'.⁹⁷

95 Eichner 1980.

96 See Sellekaerts and Lesage 1973; Blair 1974; Cagan 1975; Wachtel and Adelsheim 1977; and Semmler 1984. For conflicting empirical studies which suggest that market concentration levels do not have a significant influence on price fluctuations, see Lustgarten 1975; Weiss 1971; and Dalton 1973.

97 Marx 1970, p. 208.

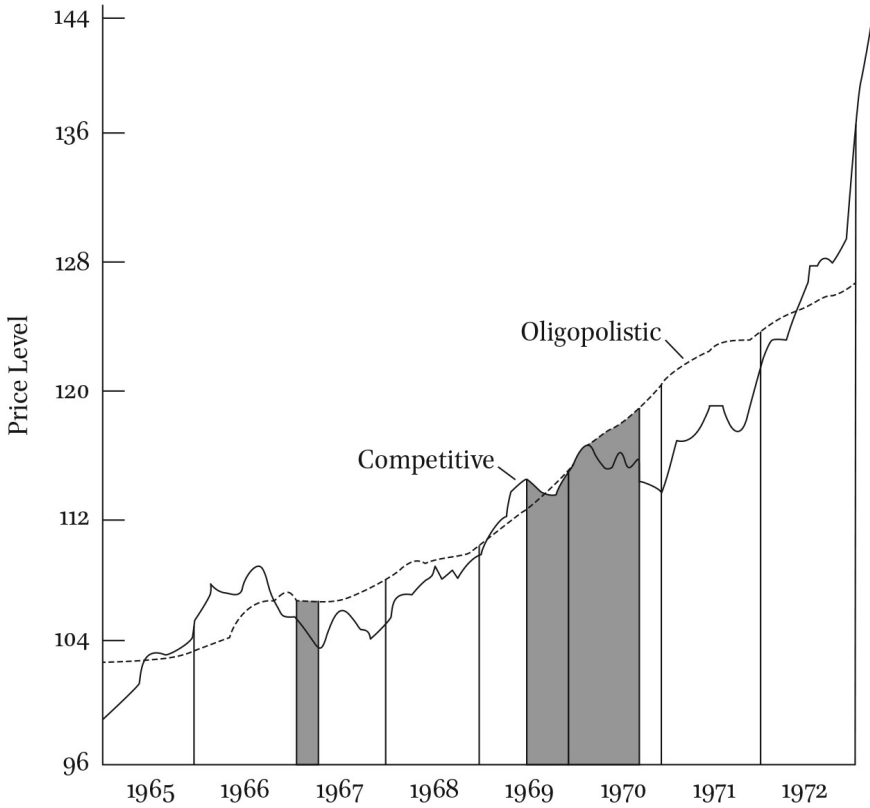


FIGURE 5.2 *Wholesale Prices in 'Oligopolistic' and 'Competitive' Industries: 1965-73*
 REPRINTED BY PERMISSION FROM ALFRED EICHNER 1980, *THE MEGACORP*
 AND *OLIGOPOLY*, ARMONK, NY: M.E. SHARPE, INC.

In his analysis of the relevant empirical literature on cyclical pricing behaviour, Semmler once again points out that the results of most of these studies are seriously biased by their failure to test for the importance of varying degrees of fixed capital outlays. Thus, he notes that 'the reason for these differences in price movements in concentrated and nonconcentrated industries may lie in the empirically well-established fact that concentrated industries are on the average more capital intensive than other industries'.⁹⁸

In order to pursue this matter further, Semmler conducts his own multiple regression tests which do include a variable for fixed capital costs. In his study of price changes across eighty-three US industries, he attempts to assess the

⁹⁸ Semmler 1984, p. 97.

relative importance of both capital/output ratios and concentration ratios for the top six firms within each industry. In his first pair of tests over the *expansionary* period 1970–2, Semmler gets different results depending on whether net or gross capital/output ratios are utilised in the regression. Yet, while only gross capital/output ratios appear to be statistically significant, concentration ratios are consistently significant and negative just as monopoly theory would suggest. On the other hand, the results for the *recessionary* period of 1973–5 are quite different. Here, both net and gross capital/output ratios are statistically significant and positive. Moreover, the beta coefficients for both capital/output ratios are quite high relative to the coefficients for concentration ratios, and concentration ratios are no longer significant. For the recessionary period, Semmler therefore concludes that ‘the hypothesis is confirmed that the actual net or gross capital/output ratios are more important for price change than the concentration ratios’.⁹⁹

In order to further explain why industries with high capital/output ratios will tend to have less flexible prices, Semmler suggests an explanation somewhat similar to Kalecki’s original discussion of pricing behaviour within industries with high overhead costs. Because concentrated industries also tend to require both high capital/output ratios and high fixed capital outlays, Semmler correctly points out that periods of declining demand will tend to cause unit overhead costs to rise more rapidly in these industries relative to those with low fixed capital requirements. Like Kalecki, he therefore suggests that ‘industries with a high proportion of fixed costs to total costs (measured at a normal rate of capacity utilization) will suffer losses in profit per unit of output unless the markup and the price are going up in those industries’. And of course, the opposite effect takes place in periods with increasing demand.¹⁰⁰

Although Semmler makes important advances by placing greater emphasis on differential levels of fixed capital investment rather than on market concentration, his suggestion that capital-intensive industries utilise countercyclical pricing methods in order to smooth out fluctuations in their profit rates is problematic. As Semmler admits, this argument requires the very strong assumption that firms with high fixed capital outlays will not attempt to lower their prices in order to minimise declines in output during recessions.¹⁰¹ Indeed, he suggests that they may even *raise* their prices due to rising overhead costs.

99 Semmler 1984, p. 100.

100 Semmler 1984, p. 97.

101 Semmler 1984, p. 101.

As noted earlier in this chapter, there is some evidence to suggest quite the opposite.¹⁰² Although there is a relatively large range of fluctuations in output where price changes are not introduced, periods of significant recession will tend to put even *greater* pressure on capital-intensive firms to lower prices precisely because of their high overhead costs. Moreover, raising prices in such periods would generally tend to exacerbate the original problem of rising overhead costs by causing capacity utilisation levels to decline even further.

Another problem with Semmler's explanation is that it suggests that administered pricing procedures are at least partly an attempt by large firms to smooth out their cycles of fat and lean years.¹⁰³ But, judging from Clifton's analysis of administered pricing policies, this does not appear to be the case.¹⁰⁴ Although administered pricing was partly developed to create greater stability in market prices, there is little evidence to suggest that these pricing policies were attempts to set prices so that firms would *always* be able to achieve the average rate of return regardless of fluctuations in supply and demand. Instead, Clifton finds evidence to suggest that administered prices were actually an institutional attempt to establish price levels that are very similar to Marx's long-run prices of production. Thus, if estimated properly, they would essentially function as centres of gravity for market prices that would enable firms with high levels of fixed capital to earn a competitive rate of return over a protracted cycle of fat and lean years.

As Donaldson Brown points out in his original pricing formulations for General Motors:

As the non-controllable expenses influence the profit margin, so the fixed portion of the investment influences the rate of return on capital. It is therefore, not possible to compare directly the rate of return on capital actually realised or expected with the economic return attainable, since the latter represents an average rate of return to be realised over a period including both good and poor years, and is not the rate to be aimed at in a given year.¹⁰⁵

¹⁰² See also Scherer 1970.

¹⁰³ Semmler (1984) and Clifton (1983) have also pointed out that another key function of administered pricing is to provide a more consistent and more profitable method of allocating investment funds across multiproduct and multiplant enterprises.

¹⁰⁴ Clifton 1983.

¹⁰⁵ Cited in Clifton 1983, p. 31. Similar comments can be found in A. Bradley's early discussion of administered pricing as an effective method of investment control across multiproduct

As discussed earlier in the section on administered pricing, perhaps a more plausible explanation for linking high capital/output ratios with more stable prices may be developed by arguing that these industries also tend to require above-average levels of reserve capacity. Thus, rather than responding to changes in supply and demand through continual price fluctuations, these firms primarily respond by altering their capacity utilisation levels. Hence, although both prices and profit *margins* may tend to be fairly stable over the cycle, profit *rates* will continue to vary along with fluctuations in output levels. This line of reasoning not only appears to be more consistent with the above discussions of administered pricing, but it is also more consistent with Marx's original discussion of the tendential regulation of profit rates over various cycles of fat and lean years.¹⁰⁶

Before going on to the issue of differential profit rates between industries, there is one additional set of empirical studies that also provides strong support for Marx's original argument concerning the key determinants of long-run prices of production. It is well known that both Ricardo and Marx suggested that movements in relative price levels for different commodities would primarily tend to be regulated by changes in the direct and indirect labour requirements of each commodity.¹⁰⁷ Recent efforts have been developed to test this classical hypothesis and the results have consistently been quite impressive.¹⁰⁸ Indeed, in two fairly extensive studies of price-value deviations, Shaikh presents good reason to argue that the labour theory of value continues to be quite relevant to the determination of relative price levels – even at high levels of industrial concentration. Reporting on his empirical results, Shaikh notes

operations. Commenting on financial control policies at GM, he states that 'return on investment is the basis of the policy in regard to the pricing on product, but it must be understood that the fundamental consideration is the average return over a protracted period of time, not the specific rate of return over any particular year or short-period of time' (cited in Semmler 1984, 184).

106 Semmler may have rejected this explanation based on his own empirical study of West Germany, which appeared to indicate that high market concentration is not clearly correlated with above-average levels of reserve capacity. Unfortunately, this study was conducted for only one year, 1973. And as Semmler himself points out, 1973 was 'the year before the recession of the mid-seventies, a year when utilization of capacity was quite high' (Semmler 1984, pp. 128–30). Thus, differentials in reserve capacity would also tend to be at their minimum. Clearly, more empirical work across longer periods of time must be conducted in order to further test these divergent hypotheses.

107 See Marx 1967c; Shaikh 1983a, 2016; and Semmler 1984.

108 Carter 1970; Shaikh 1983a; and Semmler 1984.

that 'as a typical result, for both prices of production and market prices, roughly 93 % of both cross-sectional and inter-temporal variations in these prices can be explained by the corresponding variations in values'.¹⁰⁹

Summarising his study of the empirical literature on pricing, Semmler concludes with the following:

[N]either variations in demand nor in industrial concentration can be considered important determinants of industrial pricing ... [C]ost-determined pricing and markup pricing procedures, which are usually regarded as the post-Marxian/post-Keynesian contribution to a theory of industrial and corporate pricing, are not limited to concentrated and oligopolized industries but seem to be widespread procedures ... [And finally] there is not sufficient empirical evidence to prove that price changes and their dispersion between industries in a recessionary or expansionary period of the business cycle are caused either by short-run changes in demand, by industrial concentration, or by an increase of markups or target rates of return due to exercised market power of oligopoly firms.¹¹⁰

As Semmler goes on to explain, however, one of the key pieces of 'evidence' for the monopoly pricing argument still remains to be examined. This concerns the evidence of persistent above-average rates of profit within core industries. Clearly, if administered prices and target rates of return are truly expressions of monopoly pricing power, then they should also be producing monopoly profit rates over sustained periods of time.

Evidence of Differential Profit Rates

In the section on capital mobility, we argued that Marx's analysis of the tendential regulation of profit rates across different industries suggests that fairly long periods of time are required to fully account for various cycles of fat and lean years within each industry. Moreover, at any given moment of time, substantial differential profit rates are to be expected as an integral part of the equalisation process. Because Semmler is also interested in testing Marx's argument for the long-run equalisation of profit rates, he too argues that the only solid evidence for monopoly power would be the presence of monopoly profit rates that are sustained over sizable periods of time. Yet, once again, empirical studies on dif-

109 Shaikh 1983a, p. 80. See also Shaikh 2016.

110 Semmler 1984, pp. 101–2.

ferential profit rates do not provide conclusive evidence for the persistence of monopoly profits.

The initial US studies that provided the basis for the market concentration doctrine examined profit rate differentials during the 1930s, 1940s, and 1950s.¹¹¹ Yet although many of these studies did result in 'statistically significant' evidence which suggested that 'high' market concentration was correlated with above-average profit rates, many of these results were extremely weak.¹¹² Subsequent critiques also revealed several methodological problems. In particular, critical concentration levels were often arbitrarily chosen and poorly measured, observation periods were far too short, and data bases were too limited.¹¹³

Given these methodological problems, the early studies were easily criticised by more conservative economists who were attempting to claim that the US economy was still highly competitive. In a series of studies, Brozen showed that once the initial studies by Bain, Mann and Stigler were revised by extending the time period and including more industries, differential profit rates due to market concentration were no longer clearly shown. Indeed, as the original studies were extended over time, above-average rates of return for concentrated industries tended to move toward the average rate.¹¹⁴

When other factors like firm size (measured by assets), market share, and productivity growth were also considered, revised studies further suggested that higher profit rates in concentrated industries could be better explained by these other variables. For example, studies by Demsetz revealed that profit rates were only significantly related to concentration when firms in these industries also had assets greater than \$50 million.¹¹⁵ Thus, he concluded that high profit rates were primarily due to the efficiency of these large firms, not market power.

Within more recent arguments both for and against the monopoly power position, it is now generally recognised that high concentration ratios will tend to be statistically significant only when these industries also possess substantial 'barriers to entry' such as economies of scale, and relatively high fixed capital requirements.¹¹⁶ The argument here is that high concentration only presents

111 See Bain 1951; Mann 1966; Stigler 1963; and Weiss 1963.

112 See Bain 1951.

113 Semmler 1984, chapter 4. See also Shaikh 2016.

114 Brozen 1971a, 1971b, 1973.

115 Demsetz 1973.

116 For arguments against the market concentration doctrine, see Stonebraker 1976; Ornstein et al. 1973; and Qualls 1972. For radical and Marxian arguments supporting the theories

the possibility for collusion when competition from *outside* the industry can also be prevented.

As Marx originally suggested, however, once we allow for 'barriers to entry' in the shape of large-scale enterprise and high fixed capital costs, we must also allow for 'barriers to exit'.¹¹⁷ Thus, if we are going to look for evidence of persistent monopoly profits within the US economy, it is necessary to extend our empirical investigations beyond the prosperity of the 1950s and 1960s into the more recent period of prolonged stagnation and crisis. As Semmler correctly points out, within concentrated industries that are heavily capitalised (i.e. steel and auto), these prolonged periods of stagnation may very well translate into prolonged periods of below average profit rates. Indeed, this is precisely what Marx's notion of tendential regulation over cycles of fat and lean years predicts.

The last important group of studies that do not bode well for the market concentration doctrine are recent studies that have attempted to assess whether it is industrial concentration and market power that leads to higher profitability, or simply greater efficiency as reflected in economies of scale and larger market shares. Studies by Gale, Bruzzel et al., Caves et al., and Gale and Branch¹¹⁸ all suggest that market share has greater explanatory power for interfirm profitability than market concentration.¹¹⁹

Summing up his survey of the literature on differential profit rates, Semmler draws three 'preliminary conclusions'.

First, there does not seem to be overwhelming evidence that industrial concentration by itself leads to persistence of higher profit rates. Entry barriers seem to be a necessary condition for profit rate differentials. Second, entry barriers can turn into exit barriers, leading to profit rates for industries and firms below the average ... Third, there are few studies which reveal unequivocally that firm size is the dominant variable for interfirm profitability differences. Higher profitability corresponding to firm size and larger market share in product lines may be the result of market power or of economies of scale and cost advantages, yet recent

of monopoly capital and/or the dual economy, see Edwards 1979; Bowring 1986; Sherman 1983; Foster 1986, and Foster et al. 2011.

117 See above section on capital mobility. For an important neoclassical discussion of these barriers to exit, see Caves and Porter 1977.

118 Gale 1972; Bruzzel et al. 1975; Caves et al. 1977; Gale and Branch 1982.

119 Semmler 1984, p. 127.

studies have shown that economies of scale and cost advantages influence the profitability of firms more than industrial concentration.¹²⁰

As capitalist competition continues to intensify both within and across national boundaries, debates over the validity of the market concentration doctrine have continued within virtually all schools of economic thought. In this final section on empirical analysis, we will concentrate on the intensifying debate among radical and Marxian economists.¹²¹

In recent attempts to defend monopoly and dual economy arguments, a number of Marxist writers¹²² have largely relied on empirical work that was more recently conducted by Joseph Bowring.¹²³ Using IRS data on firm profitability, firm size,¹²⁴ and industry concentration levels, Bowring tested for differential profit rates across four classes of firms: (1) small firms in industries with low market concentration, (2) small firms/high concentration, (3) large firms/low concentration, (4) large firms/high concentration. Over a period of fourteen years from 1958 to 1971, Bowring found the following:

Large firms in concentrated industries earn systematically higher profits than do all other firms, about 30 percent more than all other firms on average. The profit rates of all other firms fall fairly close together, although small firms in concentrated industries do better by a small margin than do small firms in less-concentrated industries or large firms in less-concentrated industries.¹²⁵

Although these results are clearly more dramatic than previous studies, Bowring's study suffers from several important weaknesses. While he does conduct his study over a period of fourteen years, it is still possible that this time period may not be long enough to fully account for Marx's various cycles of fat and lean years. Much more important, the problem of an insufficient observation period is greatly compounded by the fact that his study ends precisely when two very significant events are beginning to transform the US economy.

120 Semmler 1984, pp. 128–9.

121 See Foster 1986; Semmler 1982, 1983; Sherman 1983; and Glick 1985. Also see appendix to this chapter.

122 Edwards 1979; Gordon et al. 1982; Sherman 1983; and Foster 1986.

123 Bowring 1982, 1986.

124 Large firms are defined as those with over \$100 million in assets.

125 Bowring 1986, p. 152.

First, the late 1960s and early 1970s was precisely when the US economy was beginning to enter a prolonged period of stagnation and crisis. Thus, it is within this period that barriers to exit within highly capital-intensive sectors would begin to take an increasingly serious toll through rising fixed costs and declining profit rates.

The second key factor that also had detrimental effects on the profit rates of 'core' sectors within the United States was the onset of intensified international competition. This event is important for several reasons. As already noted, Marx's theory of competition suggests that it is only the profit rates of the *regulating capitals* within each industry that will tend to be equalised across different sectors. Thus, if our profit rate data are confined to an essentially arbitrary collection of capitals within one particular region or nation, we may get a very distorted view of the real worldwide process of equalisation. Indeed, although profit rates of regulating capitals across different worldwide industries may be tending toward equality over sufficient periods of time, the *average* rates of profit for various national sectors of these industries need not display any long-run equalisation tendency whatsoever. Thus, once again, we must be extremely careful to pay attention to which profit rates we are actually observing.¹²⁶

From the end of World War II through the mid-1960s, for example, it is reasonable to argue that many of the regulating capitals within 'core' industries like auto, steel, and rubber tyres were located within the United States. On the other hand, many of the regulating capitals of more labour-intensive 'competitive sectors' such as textiles, apparel, and consumer electronics were increasingly located overseas. Indeed, given that many of the latter sectors have relatively high shares of labour costs and relatively low capital mobility costs, these industries were often the first to tap into low-wage labour markets outside of the United States.¹²⁷ Hence, it is quite possible that the above-average rates of return in many of the core sectors had much more to do with the national location of the regulating capitals (and hence the relative efficiency of these US firms) rather than with their 'monopoly power'.

Of course, in the late 1960s and 1970s, this situation began to change dramatically. With the intensification of international competition, not only did the 'impenetrable' entry barriers surrounding these core sectors begin to evaporate, but the location of many of the regulating conditions of production within core industries like steel and auto also began to shift markedly. Not only

¹²⁶ See appendix to this chapter.

¹²⁷ Bluestone and Harrison 1982.

were many new regulating capitals developing in Germany, Japan, and South Korea, but US firms with aging capital equipment were also increasingly on the move.¹²⁸

Returning to Bowring's study, he does point out that 'neither the statement of core-periphery theory nor the empirical tests of that theory in this study take explicit account of international competition'.¹²⁹ Yet, because he generally assumes that large firms within each core industry tend to have very similar cost structures, the truly serious problems concerning both the timing of his study and its limited national scope are greatly underestimated. In fact, the assumption of equal cost structures artificially eradicates the problem of locating and identifying regulating capitals altogether. Still, it is interesting to note that these factors do appear to make their presence felt at the tail end of his study.

As noted, both the chronic stagnation and the shifting location of regulating capitals within the core began to take place in the late 1960s. And it is precisely between 1969 and 1971 that the profit rate differentials within Bowring's study shift dramatically – within these three years, the average profit rate of 'core' firms declines from 11 percent to 6.6 percent. Meanwhile, among small firms in unconcentrated industries, the average profit rate merely declines from 7.5 percent to 6.0 percent. Thus, in this short period of time, Bowring's 30 percent differential between core and periphery has been almost entirely eliminated!¹³⁰

Finally, a more recent contribution to the debate over persistent monopoly profit rates is an empirical study that was conducted by Mark Glick.¹³¹ Glick's

128 According to Bluestone and Harrison, these shifts of American capital became 'truly enormous' during the 1960s. 'One corporation alone, General Electric, increased its overseas capacity fourfold, from twenty-one foreign plants in 1949 to eighty-two in 1969. The proportion of total plant and equipment investment located outside the United States doubled in the metal and machinery industries, from an annual average of 14% during 1957–61 to 28% during 1967–70. By the early 1970s, nearly one third of annual U.S. automobile company investment was being placed abroad' (Bluestone and Harrison 1982, p. 113). See also Craypo 1986, 1981; and Adams and Mueller 1986.

129 Bowring 1986, p. 189.

130 Bowring deals with this peculiar turn of events by simply noting that his analysis of the IRS data provides 'tentative support' for the core/periphery hypothesis 'at least through 1969' (Bowring 1986, p. 153). For further evidence of the sharp declines in profit rates within heavy manufacturing industries in the 1970s, see Bluestone and Harrison 1982, p. 148. According to a study of twelve manufacturing industries and international commercial banking, these authors point out that in 1959, 'the United States was "home" for 111 out of the world's 156 largest multinational corporations: a share of 71 percent. By 1976, only 68 out of the largest 156 (43 percent) were American based' (1982, p. 142).

131 Glick 1985.

study was significant because his observation period goes from 1958 to 1979. Thus, it was one of the first attempts to measure inter-industry profit rate differentials over a prolonged period of time.

Using two-digit industry classifications from NIPA data, Glick runs the following regression:

$$(r_t^i - r_t^*) = c^i + p^i (r_{t-1}^i - r_{t-1}^*) + e_t^i$$

Where r_t^i is the rate of profit of industry i in time t , r_t^* is the cross-sectional weighted mean of the rate of profit in each year, p^i is the correlation coefficient of $(r_t^i - r_t^*)$ with its lagged value, c^i is a constant, and e_t^i is the random disturbance term.

Thus, he is essentially attempting to measure the extent to which the average profit rates for each industry will tend to deviate from the average rate for the economy as a whole. Based on his results, Glick presents two mixed conclusions. On the one hand, he finds that an adjustment process whereby profit rates do tend to converge toward an average rate does appear to exist in every industry, regardless of the level of concentration. He also shows that the 'size of persistent above average industry profit rates have been overstated by short-run studies'.¹³² On the other hand, Glick also points out that 'the passage of time does not completely eliminate profit rate differentials'.¹³³

In the end, Glick qualifies his results by pointing out that his study abstracts from international competition and access to financial markets. Moreover, it may be measuring the wrong ratio for the rate of profit, or an inadequate span of years. Thus, he is not yet willing to conclude that these persistent differentials provide proof of the monopoly argument.¹³⁴

Clearly, the debate will continue and more extensive and more careful empirical work needs to be done. One key issue that researchers have not yet

¹³² Glick 1985, p. 125.

¹³³ Ibid.

¹³⁴ In a more recent two-digit SIC study of profit rate differentials spanning a longer period of time (1948 to 1979), Glick and Ehrbar produce results that are similar to the 1985 study: 'Although this paper lends support to Brozen's suggestion that previous short-run studies have failed to capture long-run equilibrium, the increase in equalization gained from lengthening the estimation period seems, at first glance, disappointingly small, and a persistent differential still endures in the long run ... Brozen's hypothesis of equalization in the long run may still hold, but the interaction of many markets, each of which reacts with a different speed, may make this adjustment process a very complex one' (Glick and Ehrbar 1990, p. 161).

even begun to account for is Marx's discussion of regulating capitals.¹³⁵ One thing we can safely conclude is that the so-called 'evidence' of both monopoly pricing procedures and persistent monopoly profit rates is far from conclusive.

Perhaps of greatest significance, we have also seen that many of the empirical patterns of differential profit rates and differential pricing behaviour that do clearly exist within the modern economy are patterns that can be easily anticipated from Marx's analysis of ongoing capitalist competition. Thus, the longstanding impasse between theories of competition and the empirical evidence of persistent patterns of differential profit rates is finally beginning to be broken down. Because the results of Marx's analysis of competition are critical to our own attempt to break down a very similar impasse between theories of competitive wage determination and the empirical evidence of differential wage rates, it will be useful to summarise them here.

Chapter Summary

Competition within Industries. Unlike neoclassical theory where high levels of competition produce identical capitals with identical profit rates, Marx argues that competition continually generates an array of capitals with different levels of productivity and profitability. Newer capitals with higher levels of fixed capital investment will generally tend to have lower unit costs relative to older capitals with less advanced techniques. Because these lower costs are the most powerful weapon in the competitive struggle for market shares, these more efficient capitals will also tend to enjoy both higher profit margins and higher profit rates. Finally, Marx does not assume that 'price-taking behaviour' is the competitive norm, and there is no reason to imply that industries with larger and relatively fewer individual capitals will tend to be less competitive. On the contrary, the competitive battle for market shares tends to *intensify* as the combatants grow larger in size.

Competition between Industries. Here again, rather than arguing that effective competition will instantaneously generate equal profit rates between industries, the classical Marxist perspective suggests that this equalisation process

¹³⁵ Although Glick is familiar with the concept of regulating capitals, profit rate data over prolonged time periods is only available for industries at the two-digit SIC level. Because this involves a high level of industry aggregation, these profit rates are clearly problematic as proxies for both the average and regulating rates of profit of properly defined industries. Since this first edition was published, an exciting new method has been developed to estimate profit rates for regulating capitals. See appendix to this chapter.

must be analysed within the context of a dynamic process of tendential regulation that must allow for varying degrees of fixed capital. Thus, not only would we expect to find evidence of the convergence of different profit rates only over substantial periods of time (i.e. Marx's cycle of 'fat and lean years'), but we would also expect to find evidence of the continual re-differentiation of profit rates as well. Indeed, given the anarchic nature of capitalist production and the presence of significant amounts of fixed capital, the equalisation of profit rates between industries can only take place through the continual correction of substantial deviations above and below the average rate.

From the further development of Marx's argument by Shaikh, Semmler, and Clifton, we have also seen that industries with different technical structures of production are forced to respond to the pressures of ongoing competition in very different ways. Industries with high levels of fixed capital investment must rely on greater amounts of reserve capacity to enable them to continually adjust their output levels to changing market conditions. Because these adjustments generally take place within a range of fairly constant unit costs, these same industries also tend to have more stable prices and profit margins relative to industries with significantly lower levels of fixed capital investment.

Given that highly capital-intensive industries tend to require prolonged periods of time to bring new plants on line, we would also expect that many of these industries may enjoy relatively long periods of above-average profitability when demand is growing rapidly. On the other hand, these same industries will tend to experience sustained periods of *below* average profitability during periods of stagnation. Moreover, dying industries that are heavily capitalised will frequently attempt to hang on with below average profit rates for a number of years as they try to minimise their losses and depreciate their plant and equipment. Thus, different industries will necessarily have very different cycles of fat and lean years due to varying conditions of entry *and* exit.

In contrast to much of the discussion within oligopoly and monopoly theory, we have also seen that the equalisation of profit *rates* between industries does not imply the equalisation of profit *margins*. Heavily capitalised industries with relatively high capital/output ratios will generally require higher profit margins over their normal sales in order to achieve the average rate of profit. Similarly, industries with relatively high capital/labour ratios will also require higher profit margins per worker and hence, higher 'value productivity' per worker.

Finally, from the analysis of 'regulating capitals' we have also discovered that the equalisation of *regulating* rates of profit does not necessarily imply that *average* rates of profit for each industry will be equalised. If the regulating conditions of production in a particular industry are located outside of the region (or nation) being investigated, the average rate of profit for that industry

may not display any tendency to be equalised with the general rate of profit. Furthermore, when comparing average profit rates in agricultural and raw material sectors with manufacturing sectors, above-average rates of profit may persist in the former sectors as a result of differential rent.

Within the framework of perfect/imperfect competition, the above correlations of high levels of fixed capital and high capital/output ratios with high levels of reserve capacity, high profit margins, more stable prices, and relatively long periods of above-average profit rates would be considered strong evidence of 'barriers to entry', 'monopoly power', and price collusion. From the classical Marxist perspective, however, these same patterns can be anticipated as necessary consequences of ongoing capitalist competition.

Appendix to Chapter 5

When this book was first published in 1993, I was hoping that the newly developed classical Marxist analysis of real capitalist competition which was summarised in this chapter would soon result in a viable research programme which would allow radical economists to study the behaviour of large capitalist firms *without having to conclude that capitalist competition was no longer a critical determining force within the modern capitalist economy*. Over the past two decades, I am delighted to report that this is precisely what has happened.

Recent Empirical Work on Inter-Industry Profit Rates

When I originally completed my review of the empirical research on differential profit rates and the so-called evidence for monopoly power within core sectors of the modern economy, I noted that there were two major reasons why previous studies of inter-industry profit rates were not viable tests for the classical Marxist argument. First, within the Marxian framework, we argued that inter-industry profit rates would only tend to display a tendency towards equalisation over fairly long periods of time. This is because the real turbulent process of tendential regulation must play out across industries with very different technical conditions, which will necessarily affect capital's ability to move in and out of these sectors in response to significant differentials in profit rates. Thus, as Marx noted long ago, various cycles of fat and lean years must be accounted for. (See section on 'Tendential Regulation' above). Second, we noted that this turbulent process would only tend to channel and regulate the profit rates of the *regulating capitals* that utilise the best practice techniques which are readily available within each industry. Moreover, because the rates of profit of *regulating capitals* will often diverge from the *average* rates of profit

within most industries due to the presence of firms with aging fixed capital structures, the Marxian model of competition does *not* suggest that the average rates of profit will necessarily be equalised across industries. Given that the great majority of the previous studies did not encompass sufficient time-frames, and virtually all of them failed to distinguish between regulating and average rates of profit within each industry, the classical Marxian framework clearly remained to be tested. Equally important, it was not yet clear how we would be able to develop data on regulating rates of profit.

Since that time, this writer is happy to note that Anwar Shaikh, John Weeks and a number of young economists coming mainly out of the New School have been drawing on the work of the classical economists (as well as select British economists from the 1930s) in order to develop a more classical approach to the analysis of real capitalist competition. As an important part of this project, these writers have developed a promising proxy for the 'regulating rate of profit' within various industries, and this innovation has led to a stream of interesting empirical studies which have provided significant support for the classical/Marxist argument.

In his 2008 article on 'Competition and Industrial Rates of Return', Shaikh explains that we can develop a useful proxy for the rate of return on regulating capitals by estimating the 'incremental rate of profit' for new investments within different industries. This incremental rate of profit can be derived in two stages. First we can estimate the *current gross profits* of newer capitals within each industry by calculating the *change* in overall gross profit over the past year. Next, the *rate of profit* on newer capital can then be estimated as 'the ratio of this profit to the previous period's gross investment'.¹³⁶ Shaikh goes on to explain that the incremental rate of profit has the following important advantages:

First, it is estimated easily because its two components, gross profit and gross investment, are widely available across countries and over time: gross profit is defined as gross operating surplus, while gross investment is observed directly, unlike the laboriously constructed measures of the capital stock required to calculate the average rate of profit. Second, the incremental rate of profit has a direct interpretation as the 'marginal' return on capital, provided one understands that, like all real 'marginals', it is turbulent, spikey and discontinuous.¹³⁷

¹³⁶ Shaikh 2008, p. 174.

¹³⁷ Ibid; see also Shaikh 2016.

Christodouloupoulos was the first to use incremental profit rates to measure both average and incremental profit rates in eight manufacturing industries across eight OECD countries between 1970–90.¹³⁸ Consistent with the classical approach to capitalist competition, he found that while average rates of profit did not always converge, the incremental rates of profit did *not* exhibit persistent differentials over longer periods of time. Shaikh revisits this OECD data set and once again compares the average and incremental rates of profit across these eight manufacturing industries. He also looks at data for US manufacturing alone, from 1979–90, and then expands his sample to include 30 US industries from 1987–2005. Summarising his results, Shaikh notes the following:

While most rates of profit on total capital cluster around a common mean, several remain persistently above or below that level. On the other hand, incremental rates of profit consistently cross back and forth, as would be expected from the classical theory of turbulent profit rate equalization.¹³⁹

Similar results were discovered by Tsolfidis and Tsaliki who studied 20 Greek manufacturing industries between 1962–92,¹⁴⁰ Bahce and Eres who studied 28 Turkish manufacturing industries from 1980–2001,¹⁴¹ and Vaona who tested for convergence or equalisation in OECD countries at the industry level.¹⁴² Finally, John Sarich and Jason Hecht use the Thomson Financial Worldscope database to study business competition and various measures of profitability between 1980–2008.¹⁴³ Based on a sample of over 14,000 firms from China, India, US, Japan, Germany, Great Britain and France, they once again find evidence of turbulent equalisation when utilising the incremental rate of profit.

Thus, it certainly appears that when studies do take care to distinguish between average and regulating rates of profit within each industry and allow for sufficient time periods for various cycles of fat and lean years to play out, there does seem to be evidence for a long-run and quite turbulent equalisation process across the regulating capitals of the majority of industries. On the other hand, there is very little evidence for persistent above-average regulating rates of profit for so-called ‘core’ sectors of the economy.

¹³⁸ Christodouloupoulos 1995.

¹³⁹ Shaikh 2008, p. 186; see also Shaikh 2016.

¹⁴⁰ Tsolfidis and Tsaliki 2005, 2013.

¹⁴¹ Bahce and Eres 2013.

¹⁴² Vaona 2011.

¹⁴³ Sarich and Hecht 2013.

Recent Explorations in the History of Economic Thought

Within the history of thought it is also important to note that Jamee Moudud¹⁴⁴ and Anwar Shaikh¹⁴⁵ have discovered important parallels between the classical school of thought (Smith, Ricardo, Marx) and the work of several British economists who had been involved with the Oxford Economists' Research Group (OERG) back in the 1930s. These economists, who included P.W.S. Andrews, Elizabeth Brunner, Roy Harrod, R.L. Hall and C.R. Hitch, were systematically examining actual business practices, and they became deeply dissatisfied with both the theories of perfect *and imperfect* competition as a viable framework for studying actual firm behaviour within real world competitive environments. Contrary to received neoclassical theory, several of these economists discovered that *competitive firms* in virtually all industries were engaged in direct and indirect rivalry over market shares, and that costs and profit rates were generally different among firms in the same industries. They also found that the most efficient firms in each industry tended to be price leaders who actively set their prices in order to attempt to achieve not the maximum short-run profit, but an average rate of profit over longer periods of time.¹⁴⁶ Moreover, Andrews and Brunner argued that there were strong reasons to be quite sceptical regarding the assumed downward sloping demand curves that were being utilised throughout imperfect competition theory.¹⁴⁷ While these findings were very difficult to reconcile with neoclassical theory, they strongly supported the classical framework for real capitalist competition.

In an effort to combine many of the arguments of P.W. Andrews with the classical Marxist framework, Jamee Moudud has proposed an interesting theory of 'strategic competition' in which all firms, large and small are aggressive price-setters. The components of his combined theory are described in a recently edited book on *Alternative Theories of Competition*:

Firms set their prices on the basis of strategic considerations arising from the threat of actual and potential rivals. Because ongoing innovation and technological change are persistent features of the capitalist economy, entry barriers are generally porous over any longer-run time periods. Thus prices are set as *competitive mark-ups* (as opposed to monopoly ones) as firms attempt to target the minimum-cost range of their average total

¹⁴⁴ Moudud 2010, 2013.

¹⁴⁵ Shaikh 2016.

¹⁴⁶ Hall and Hitch 1939.

¹⁴⁷ See Shaikh 2016, chapter 7.

costs. The porosity of entry barriers and the fact that market prices in any industry are regulated by the costs structure of the most efficient firms are core features of the Andrewsian theory of the firm that relate directly to the classical theory of competition.¹⁴⁸

In additional chapters of this important new book, writers explore interesting implications of heretical insights ranging from Schumpeter's views on technological innovation and creative destruction, all the way to the Austrian school's portrayal of real capitalist competition as an inherently dynamic process of continual rivalry. Hailing from the Post-Keynesian tradition, Fred Lee develops an unorthodox theory of mark up pricing that derives not from monopoly power, but from both the firm's wage rate and its technical conditions of production. Finally, in addition to the empirical studies on regulating rates of profit which were discussed above, Cyrus Bina also shows that the classical framework of capitalist competition can provide a powerful analysis of the contemporary oil industry.

What is perhaps most exciting about this new collection of articles is that it has helped to open up a productive dialogue between a number of different writers who are attempting to understand the dynamics of *real* capitalist competition from a number of different theoretical vantage points. As the introduction to *Alternative Theories of Competition* states, the 'unifying theme throughout this volume is that competition is conceptualized as a dynamic disequilibrium process or a violent life and death struggle, rather than the static equilibrium set of conditions underpinning conventional theories'.¹⁴⁹ Hopefully, this will mark the beginning of more collaborative efforts in the future.

Continuing Discord between Classical Marxists and the Monopoly Capital School

While a productive dialogue has begun to develop between a number of heterodox economists, this collaborative spirit has unfortunately not carried over to the two radical schools of thought that ironically have the most in common in terms of their fundamental critique of capitalism. Here I am referring to the continuing rift between classical Marxists and writers hailing from the 'monopoly capital school' which is represented by the highly popular and important Marxist journal, *Monthly Review*.

148 Moudud, Bina and Mason (eds.) 2013, p. 6.

149 Moudud, Bina and Mason (eds.) 2013, p. 5.

In a recent article entitled 'Monopoly and Competition in the Twenty-first Century', Foster, McChesney and Jonna introduce their argument for the continuing relevance of 'monopoly capital' with the following lament:

A striking paradox animates political economy in our times. On the one hand, mainstream economics and much of left economics discuss our era as one of intense and increased competition among businesses, now on a global scale. It is a matter so self-evident as no longer to require empirical verification or scholarly examination. On the other hand, wherever one looks, it seems that nearly every industry is concentrated into fewer and fewer hands. Formerly competitive sectors like retail are now the province of enormous monopolistic chains, massive economic fortunes are being assembled into the hands of a few mega-billionaires sitting atop vast empires, and the new firms and industries spawned by the digital revolution have quickly gravitated to monopoly status. In short, monopoly power is ascendant as never before.¹⁵⁰

They go on to suggest that this is a critical matter for all those who are attempting to provide a fundamental critique of capitalism because 'the economic defense of capitalism is premised on the ubiquity of competitive markets, providing for the rational allocation of scarce resources and justifying the existing distribution of incomes ...'.¹⁵¹

Once again, they base their argument for monopoly capital primarily on evidence of growing economic concentration and centralisation within the US and the world economy as *prima facie* evidence of the continual march towards 'financialized monopoly capital'. Most important, they make it explicitly clear that their own notion of capitalist competition is largely informed by the neoclassical theory of perfect competition. Indeed, after quoting from Milton Friedman's definition of perfect competition they state the following: 'Such assumptions are given a very restrictive and determinate form in neoclassical economic notions of perfect and pure competition, but the general view of competition in this respect is common to all economics. This *is* the principal meaning of competition in economics'.¹⁵²

Most disturbing to this writer is that they seem to be largely unaware of the above classical research programme that has been going on for the past

¹⁵⁰ Foster, McChesney and Jonna 2011.

¹⁵¹ Ibid.

¹⁵² Ibid, original emphasis.

two decades, and they are not terribly familiar with the work of some of the principle writers who have developed this more classical framework.¹⁵³ Indeed, they only briefly mention the work of John Weeks who they pejoratively label a 'fundamentalist' for apparently taking Marx's original analysis far too seriously.

The irony is that if they had paid more attention to Marx's arguments in *Capital*, they would have been reminded that Marx develops a devastating critique of capitalism through his analysis of the laws of motion of capital *and the dynamics of ongoing capitalist competition*. Not competition as ideally conceived by neoclassical economics and monopoly capital theorists, but as it really existed assuming large investments in fixed capital, tremendous uncertainty, and the continuous war for market share via technical change, and active price-cutting. Thus powerful critiques of both capitalism and the supposedly equitable dynamics of 'competitive markets' do not at all require a theory of 'monopoly capital'.

Since the classical Marxist school and the monopoly capital schools share so many of the same deep concerns regarding the horrendous results of continuing the capitalist mode of production, it is this writer's hope that more productive dialogues may be possible in the future. Indeed, Foster and others might begin a more serious study of the classical Marxist school, by reading Michael Yates's excellent review of my book which actually appeared in *Monthly Review* in 1996.¹⁵⁴ In his review, Yates praised my 'seminal' analysis of competitive wage determination because it provided a real determinate analysis of wage rates – even in industries that supposedly possess monopoly power. Equally important, he notes that the classical Marxist analysis showed how workers can collectively struggle for higher wages across *all industries* once they understand how these industries actually work in the real world and can develop successful strategies accordingly. Ironically, while it was clearly one of the most positive reviews that I received, it made very little mention of the fact that my arguments were fundamentally premised on the notion that capitalist competition (and not 'monopoly capital') was a continuing dynamic which had to be confronted by successful worker organisation.

153 Shaikh 1979b, 1980b, 2008; Semmler 1982, 1983, 1984; Weeks 1981; and Botwinick 1993.

154 See Yates 1996.

Capitalist Competition and Differential Wage Rates (I): The Analysis of Regulating Capitals

The competition among workers is only another form of the competition among capitals.

– KARL MARX, *Grundrisse*



The previous chapter demonstrated how Marx's discussion of competition between and within industries provides an extremely rich analysis of the competitive process which finally allows us to confront many of the phenomena that so greatly disturbed several generations of institutional labour economists. In our survey of the literature on wage differentials, we saw how the implicit acceptance of the theory of perfect competition made it virtually impossible for institutionalists to develop a systematic theory of wage differentiation. Confronted by the real-world presence of enormous masses of fixed capital, high levels of market concentration, and persistent patterns of differential profit and wage rates, their neoclassical starting points made it quite difficult to argue that capitalist competition remained a key determining force within the modern economy. Indeed, within manufacturing, above-average wage rates often tended to be closely correlated with above-average profit rates and all of the other neoclassical indicators of monopoly power. Moreover, wage differentials that largely appeared to be the result of race and gender discrimination proved to be far more persistent than could be explained by the neoclassical theory of competitive wage determination.

Thus, in the end, several generations of institutionalists essentially gave up the project of developing a determinate theory of competitive wage determination. After all, if differential wage rates are primarily due to differences in relative bargaining power and differential profit rates, and if above-average profit rates are largely due to administered pricing and other forms of 'monopoly power', it is difficult to be convinced that there are determinate limits to wages, prices, and profits.

As we soon discovered, however, this tendency to deny the importance of competitive factors made institutionalist arguments vulnerable to methodo-

logical critiques from neoclassical theorists. As Allan Cartter pointed out in the late 1950s, 'If bargaining power were the important wage determinant, we would have wage rates ranging from infinitesimal amounts to infinity rather than the pattern of wage conformity which actually exists'.¹ And yet, while neo-classical economists could reasonably argue that the limited range of wage differentials clearly suggested that competitive forces were alive and well, they could not consistently account for these persistent patterns of wage differentiation within their own theory of competitive wage determination. On the contrary, up until the recent development of efficiency wage theory, they were often forced to ignore much of the empirical evidence which suggested that wage differentials were significantly influenced by factors in the product market.

By developing our analysis of wage differentials within the context of Marx's analysis of capitalist competition, we will show that the completion of several missing pieces within Marx's discussion of competitive wage determination finally enables us to break through this long-standing impasse within competitive wage theory. Just as Shaikh, Semmler, and Clifton were able to utilise Marx's analysis to show that many patterns of differential profit rates can be explained without resorting to monopoly theory, this chapter argues that many well-known patterns of inter- and intra-industry wage differentials can also be made quite consistent with ongoing capitalist competition.

Ultimately, we will argue that the critical insight of the institutionalists – that differential conditions within product markets must have a significant influence on related labour markets – can be borne out without having to give up a determinate analysis of wages, prices, and profits. Indeed, echoing Marx's comment in the *Grundrisse*, in many situations we will show that 'the competition among workers is only another form of the competition among capitals'.²

In order to construct our analysis of wage differentials, three major arguments will be advanced. First, we will show precisely how the competitive generation of differential conditions of production and profitability between and within industries also provides the basis for differential limits to rising wage rates across these same firms and industries. Despite this continual generation of differential wage and profit rates, however, we will go on to argue that the combined effects of capitalist competition and the ever present reserve army of labour will nevertheless set strict limits to these wage variations. Finally,

1 Cartter 1959, p. 7.

2 Marx 1973, p. 651.

within these systematic limits, we will show that the uneven efforts of workers to increase their wage rates can have a very significant and persistent influence on wage differentials among workers of similar skill.

To develop these arguments, our analysis of wage differentials will be constructed in two stages. In this chapter, we begin with the most general and most difficult case by attempting to derive the upper limits to wage variations for *regulating capitals* across various industries that possess different technical conditions of production. Chapter 7 then discusses the case of *non-regulating capitals* that are either more or less efficient than the regulating conditions within their respective industries.³

Overview of the Dynamic Adjustment to Changing Wage Rates

Chapter 5 maintained that the 'regulating capitals' within each industry tend to be those capitals that possess the most efficient conditions of production that are generally accessible. Because these capitals represent the most competitive conditions that can be reproduced, they essentially act as the practical standard for the industry as a whole. Accordingly, capitals entering any particular industry will generally attempt to duplicate these regulating conditions, and the cost structures of these regulating capitals will tend to form the basis for each industry's price of production. To begin an analysis of wage differentials within regulating capitals, we start by assuming that competition has led to prices of production that provide roughly equal rates of profit for regulating capitals within each industry. We then go on to show that although competition will continually tend to equalise profit rates across industries, there nonetheless exists strictly limited space for persistent patterns of wage differentials to potentially arise within and between these industries.⁴

Beginning with equal profit rates for regulating capitals in each industry, the following outlines what will tend to occur when workers employed in *all of the regulating capitals within one particular industry 'A'* go on strike for higher wages. Assuming that workers do manage to secure a wage increase within the regulating capitals of industry A, this will immediately raise the unit costs of these capitals and therefore lower profit margins and profit rates at existing prices. Hence, these capitals will now receive a lower rate of return

3 Although the following analysis of wage differentials can easily be extended to agriculture, we will limit our discussion to nonagricultural sectors.

4 The assumption of equal profit rates across different industries will be dropped in chapter 7.

relative to regulating capitals in other industries. The interesting question now becomes the following: *How will the forces of capitalist competition between and within industries eventually respond to this worker-generated inequality in inter-industry rates of profit?*

As long as these wage increases remain within clearly specified limits, they can be sustained for prolonged periods of time. Anticipating results to be derived below, if rising wage costs do not force these regulating capitals to lose their status as the low-cost producers, these capitals will continue to function as the practical standard for the industry as a whole. Thus, when the regulating rates of profit in industry A are forced below the general rate of profit for the economy as a whole, competition between industries will eventually cause *relative* prices to adjust in order to accommodate these rising costs of production within A.

Briefly, the initial discrepancy in profit rates caused by the wage increase will eventually cause the rate of growth of supply within industry A to decelerate as capital begins to flow more rapidly into other industries where regulating capitals are receiving higher profit rates. Assuming a period of healthy accumulation,⁵ supply will tend to grow more slowly than demand, and the equalisation of profit rates across regulating capitals in different industries will bring about a rise in relative prices for the regulating capitals suffering the original wage increase. Thus, as long as workers in industry A can continue to maintain the strength and organisation required to achieve this higher wage rate within *all* of the regulating capitals, local wage increases can be sustained within the context of ongoing capitalist competition.

Although Marx never completed his discussion of competitive wage determination, he clearly did allow for the above possibility of sustained local increases in wage rates.

[I]f the rise in wages is local, if it only takes place in particular spheres of production as a result of special circumstances, then a corresponding nominal rise in the prices of these commodities may occur. This rise in

5 In the case of an industry that is suffering from stagnating or declining market demand, the effects of a wage increase will obviously be more severe. If the industry is in the process of dying, the new price of production may never be achieved. Unlike neoclassical theory, we have already seen that Marx's analysis of competition between industries does not suggest that industries will rapidly disappear as soon as they can no longer achieve the average rate of return. If they have large investments in fixed capital, they may attempt to hang on for a number of years – particularly if they are able to shore up their declining profits by utilising the reserve army to lower their wage costs.

the relative values of one kind of commodity in relation to the others, for which wages have remained unchanged, is then merely a reaction against the local disturbance in the uniform distribution of surplus-value among the various spheres of production, a means of equalising the particular rates of profit into the general rate.⁶

Even at this general level of analysis, the movement to a dynamic argument of tendential regulation (as opposed to static equilibrium) allows us to derive three important results that immediately differentiate our argument from both neoclassical and institutional approaches. *First*, within neoclassical theory, a wage increase that is not preceded (or accompanied) by an equivalent increase in the marginal productivity of labour can only be achieved at the expense of declining levels of employment as firms ride up their marginal revenue product curves. In contrast, our argument suggests that even with no change in the average or marginal productivity of labour, higher wage rates *that remain within the limits of capitalist competition* will merely cause the rate of growth of employment to decelerate until relative prices can adjust to accommodate the new wage rate. Thus, there is little reason to argue that competitive pressures will generally require local wage increases to be accompanied by a reduction in the actual level of employment. Indeed, when we further recognise that the ample presence of reserve capacity suggests that most firms normally do not experience diminishing returns (or a declining marginal product of labour) until they are very close to full capacity, an immediate reduction in employment and capacity utilisation levels would tend to further reduce profit margins, not enhance them.⁷

6 Marx 1967c, p. 868. Unfortunately, Marx did not elaborate further on the competitive dynamics of local wage increases. The primary purpose of the above illustration was to show how the surface workings of competition often appear to suggest that the value of a commodity is determined by the wage rate, rather than by its socially necessary labour time. Of course, for Marx this was merely an illusion.

7 For an interesting and pathbreaking empirical study of firm behaviour in the face of rising wage rates, see R.A. Lester 1946. After studying the responses of over 50 manufacturers in a variety of industries, Lester concluded that 'business executives generally do not think of deliberate curtailment of operations and employment as an adjustment to wage increases, partly because some plants and operations require fixed crews under existing techniques of production and partly because ... business men believe that variable costs per unit of production increase as production and employment are curtailed' (Lester 1946, p. 67). Although Lester convincingly argued that 'new directions' in wage theory should be pursued, neoclassical theorists have tended to minimise the importance of his findings. A useful discussion of these largely unresolved issues can be found in Kaufman 1988b. See also Machlup 1946

For both of these reasons, the above analysis of wage increases within a single industry can essentially be derived while abstracting entirely from changes in the productivity of labour and from changes in the immediate level of employment. Within the bulk of this analysis we will therefore assume that the productivity of labour is held constant until we return to our final set of limiting forces which are determined by the general laws of capitalist accumulation.⁸

Second, although the above increase in relative prices for the regulating capitals in industry A may appear to be an oligopoly, 'cost-plus markup', this change in relative prices is merely the consequence of the equalisation of profit rates that is achieved *through the competition of capitals* – not through monopoly pricing power. Thus, this dynamic process of incorporating higher labour costs into an industry's cost and price structure can presumably take place within the regulating capitals of *any industry* – concentrated or unconcentrated.

and Cartter 1959. [For recent support for Lester's arguments, see Card and Krueger (1995) whose extensive empirical study showed that there were no discernible negative employment effects within New Jersey's fast food industry after the state raised its minimum wage. This now famous study prompted an extensive new wave of empirical studies on the employment effects of increasing the minimum wage. To the dismay of many conservative economists, these studies have largely continued to show that there are no significant negative employment effects. For a good review of these newer studies see Schmitt 2013].

- 8 Although we will certainly see that the limits to rising wage rates are partly determined by productivity growth at the *aggregate level*, the mediations between labour productivity and competitive wage rates at the industry level may be far more complex than is generally assumed. In many orthodox and institutional discussions, it is assumed that differential rates of productivity growth between industries provide an important foundation for inter-industry wage differentials. On the other hand, significant productivity differentials *within* industries are theoretically not supposed to exist in highly competitive economies and are rarely recognised when they do. Within this book, we will once again break from the generally accepted wisdom by arguing just the opposite. Contrary to marginal productivity theory, Marx's labour theory of value clearly argues that above-average rates of productivity growth in particular industries do not at all imply that workers within these sectors are producing greater amounts of value (or surplus value) relative to other sectors. Moreover, significant increases in productivity are normally generated by higher levels of mechanisation and fixed capital investment. As we argued in chapter 5, these higher levels of capitalisation will generally require firms to lower their price in order to make room for their expanding levels of output. Thus, within Marx's argument, there is no a priori reason to assume that above-average levels of productivity growth within any particular industry will automatically generate more space for wage rates to rise above those in other sectors. As we shall soon discover, however, Marx's analysis of capitalist competition does suggest that productivity differentials *within industries* may have a very profound effect on both intra- and inter-industry wage differentials.

The *third* important implication that can be derived from this general level of analysis pertains to the issue of wage-push theories of inflation. Without a detailed simultaneous equations model for the entire economy, we cannot say precisely where relative prices will finally settle as a result of the above wage increase. Since Bortkiewicz's early discussion of the so-called 'transformation problem', it has generally been recognised that changes in prices of production that result from changing input costs are extremely complex, particularly when involving changing wage rates.⁹ Nevertheless, we do know that the initial relative price rise for the regulating capitals in industry A will cause a transfer of value to these capitals from other industries. Next, regulating capitals in other industries that use industry A's products as inputs will feel similar pressures on their profit rates due to rising costs. This will eventually result in yet another round of relative price changes. Finally, capital as a whole may feel a generalised pressure on wage levels as other workers attempt to use this initial wage increase to raise their wages as well.

Despite all of these movements in relative prices, however, it is important to note that there is nothing in our analysis of competitive wage determination which necessarily implies that there will be a change in the aggregate price level across the economy.¹⁰ Thus, unlike many institutional and post-Keynesian discussions that rely on theories of monopoly pricing, our analysis does not provide the logical basis for a wage-push theory of inflation.¹¹

To say anything further about movements in the general price level would require us to develop a Marxist analysis of money, credit, capitalist accumulation and effective demand that cannot be attempted here.¹² Nevertheless, we can assume that the final result of this initial wage increase will be a higher wage for those workers who went out on strike, a higher relative price for industry A's product, a lower industry and general rate of surplus value, and finally, a decline in the general rate of profit. Of course, these latter decreases in the general rates of profit and surplus value will tend to be minimal since industry A's wage bill is only a small portion of the total economy wide wage bill.¹³

9 Bortkiewicz 1907.

10 See Marx 1967c, p. 205 and Marx 1970.

11 Although many wage-push theorists argue that union wage increases were an initial, causal factor generating inflationary pressure within the US economy in the late sixties and seventies, empirical support for this claim is actually quite weak. See Mitchell 1980 and Freeman and Medoff 1984.

12 For a very interesting alternative analysis of inflation from a classical political economy perspective see Shaikh 1999, 2016.

13 Those readers familiar with Marx's writings on this subject will recognise that the above

Deriving Determinate Limits to Rising Wage Rates

Because we are suggesting that wage increases within regulating capitals will eventually be 'passed on' in higher relative prices, we must now ask what determines the *limits* to these rising wage rates. It should be recalled that previous institutional and radical analyses that depended on theories of imperfect competition (or monopoly capital) could not satisfactorily answer this question. In this analysis, however, we are arguing that the regulating firm's ability to achieve higher relative prices in response to local wage increases lies well within the confines of capitalist competition between and within industries. Thus, within this framework of ongoing competition, we will be able to derive three sets of limiting conditions (or downward pressures) that continually act to constrain these rising wage rates. These limiting conditions are the following:

1. The constraints of short-run profitability that are determined by the *profit margins of regulating capitals* experiencing the wage increase (derived from competition *between* industries).
2. The more narrow constraints that are determined by the *unit costs of 'sub-dominant' capitals* (derived from competition *within* industries).
3. The most concrete (and hence, most complex) limits which are determined by the *costs of obstructing the wage increase* that workers can collectively impose on firms that attempt to resist worker demands.¹⁴

In the final section of this chapter, we will return to our previous discussion of the general laws of capitalist accumulation within the aggregate labour market. By locating our analysis of the competitive limits to wage differentiation within this more general discussion of the aggregate labour market, we will then arrive at our final set of dynamic constraints within the capitalist economy. As in chapters 3 and 4, these aggregate wage constraints will be determined by movements in three key factors: aggregate productivity, the general rate of profit, and the reserve army of labour.

In the following discussion of each of the above limits, it is important to stress that these limits are logically derived from Marx's analysis of competition

results are quite consistent with Marx's arguments within *Wages, Price and Profit* (Marx 1970).

14 Unlike the first two constraints that are imposed on regulating capitals by the *external* forces of capitalist competition, this third limit is largely derived from *internal* factors that tend to influence the relative bargaining power of capital and labour within each particular industry.

and accumulation. Thus, the order of presentation will be primarily determined by the level of abstraction required for each limit's derivation. Given the logical development of our argument, the reader should therefore be careful not to assume that the order of presentation is necessarily the same as the order in which these limits are actually encountered by workers as they attempt to raise their wages in any particular concrete situation. Quite the contrary. In many cases the ability of workers to impose 'costs of obstruction' on their employers will tend to function as the primary wage constraint while the first two limits merely remain potential factors to be reckoned with if workers should become more effectively organised. Nevertheless, we will soon see that serious errors in the analysis of workers' power may result when these other critical limits are overlooked.

Finally, although the following presentation will show that the above wage constraints can be defined with a good deal of analytical precision, the reader should avoid the temptation to view these constraints as highly deterministic limits that are completely inviolable under all circumstances. Rather, the derivation of these limits is primarily meant to provide a systematic outline of critical downward pressures that workers are continually forced to confront as they attempt to raise their wage rates. All of these points will become increasingly clear as the argument unfolds.

Limit One: The Immediate Profitability of Regulating Capitals

Continuing our original discussion of the consequences of rising wage rates within *all* of the regulating capitals in one industry, we will now derive our first limit. In order to do this, it will be helpful to illustrate the argument with the following numerical example. At normal levels of output and a given wage of \$0.50 per hour, we assume that the costs of production¹⁵ for regulating capitals (*) in industry A are as indicated in table 6.1 below.

15 In order to avoid unnecessary complexity, our numerical examples abstract from fixed capital and assume that the turnover of all circulating capital is uniformly equal to one. From our discussion of Limit One, we will soon see that the critical structural variables across different industries are the ratio of total capital advanced to total output (κ/q), and the ratio of total capital to total labour requirements (κ/L). Thus, the breakdown of constant capital into its fixed and circulating components is not relevant. In other cases where this distinction may become significant, we will nevertheless show that our numerical examples continue to illustrate fairly general results.

TABLE 6.1 *Costs of production for regulating capitals (A^*)*

	(1)	(2)	(3)	(4)
F	Total	Total	Output	Unit
I	Costs	Labour		Cost
R	(Capital	Hours		
M	Advanced)			
	(K)	(L)	(Q)	($k^* = K/Q$)
A^*	90C + 10 W	20	10	\$10

Where:

C = total constant capital costs

w = hourly wage = \$.50

$w = wL$ = total wage costs

Given that competition between industries will tend to equalise profit rates across regulating capitals in all industries, the regulating price of production (P^*) for any particular industry is determined in the following manner:

$$P^* = (k^*) + r^* (K/Q) \quad (1)$$

Where:

r^* = general rate of profit for all regulating capitals

P^* = regulating price of production

(K/Q) = regulating capital/output ratio

k^* = regulating unit costs¹⁶

16 In our numerical example, $k = (K/Q)$ due to the absence of fixed capital. With fixed capital (Kf), unit cost-price (k) is no longer equal to unit investment cost (K/Q). Hence, (P^*) becomes more complex:

without $Kf \rightarrow P^* = k + r^* (K/Q)$

$$\text{with } Kf \rightarrow P^* = \left[\frac{M + dKf + W}{Q} \right] + r^* \left[\frac{Kf + \frac{M}{t} + \frac{W}{t}}{Q} \right]$$

Within this more complex expression for P^* , the first bracket, which represents unit cost (k), must now include a term for depreciation (dKf). Moreover, the calculation of total capital invested (K), which constitutes the numerator in the second bracket, must now

TABLE 6.2 *Regulating prices and profit margins for Industry A*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
F I R M	Total Costs (K)	Total Labour Hrs. (L)	Output (Q)	Unit Costs $k^* =$ (K/Q)	Reg. Profit Rate r^*	Reg. Price P^*	Profit Margin $m = r^* (K/Q)$
A*	90C+10W	20	10	\$10	.5	\$15	\$5

From equation (1) above, we can further derive the profit margin (m) that each regulating capital will also tend to achieve as a result of the equalisation of profit rates. Starting from the above equation for P^* , we simply deduct unit costs (k) from both sides of the equation. Thus

$$m = P^* - k^* = r^* (K/Q) \quad (2)$$

If we now assume that the general rate of profit (r^*) is equal to 50 percent, we can use both of these equations to calculate the following additional information regarding regulating capitals in Industry A (see table 6.2).

Given the information in table 6.2, it is easy to see that if workers should attempt to increase their wages within all of the regulating capitals in Industry A, this will raise the above unit cost-price (k^*) and squeeze both profit margins and profit rates at the existing price of production. Thus, we must now attempt to discover just how far actual wage rates can rise before they will begin to have a serious impact on the profit rates and employment levels of these regulating firms.

Although many institutionalists have tended to assume that firms in concentrated industries can easily avoid these reduced profit margins by simply raising their prices, the real competitive process of tendential regulation suggests that such price increases are not so simply achieved in *any* industry – concentrated or unconcentrated. Although we have argued that the *centre of gravity* for market prices will ultimately be determined by the regulating conditions of production within each industry, the actual market price at any particular moment is

consider the various turnover times (t) of circulating capital (M, w). (M = materials costs). Finally, (r) becomes a relation of flow to stock, rather than of flow to flow.

not independent of the conditions of supply and demand. Thus, while wage increases that affect all of the regulating capitals will raise the centre of gravity for that industry's market price, firms attempting to immediately achieve these higher prices may face important negative consequences that are often overlooked. If current levels of demand cannot fully absorb these price increases, the effect on the immediate level of output may be quite significant.¹⁷

In industries with a large number of regulating capitals, simultaneous price increases are usually difficult to achieve. Thus, if individual capitals should become impatient and attempt to raise their prices immediately, they will obviously risk losing a large part of their market share to their more cautious competitors. Even worse, the eventual decline in the rate of growth of product supply that generally results from a wage increase may be accelerated by the actual demise of these impatient capitals.

In highly concentrated industries with only a small number of regulating capitals, the restrictions on immediate price increases that are imposed by market conditions merely take a different form. Here regulating capitals may be able to orchestrate a simultaneous rise in prices through a system of price leadership or some other more explicit form of price collusion. Yet, although these capitals may be able to avoid relative losses in market share due to price competition, an immediate increase in price may nevertheless have important consequences for their current levels of output. Moreover, this price increase will continue to be limited by competition between and within industries.

In the overview of this chapter, we argued that if prices remain at their original levels at the time of the wage increase, declining profit rates will simply cause a *deceleration in the rate of growth* of actual (and potential) supply until

17 'In the case of a partial, or local, rise of wages – that is, a rise only in some branches of production – a local rise in the prices of the products of these branches may follow. But even this depends on many circumstances. For instance, that wages were not abnormally depressed and that therefore the rate of profit was not abnormally high; that the market for these goods is not narrowed by the rise in prices (hence a contraction of their supply previous to raising their prices is not necessary)' (Marx 1967a, p. 341; see also Marx 1970). Marx's argument against arbitrary price increases should not be confused with neoclassical economics where highly 'competitive' firms are assumed to be 'price-takers' because they are unable to affect market supply. As explained in chapter 5, Marx assumed that firms would have a significant impact on supply. Thus, firms introducing more efficient methods of production would generally have to actively lower their price in order to 'command a more extended market' (Marx 1967a, p. 317). Hence, while price increases clearly have important limitations, price-cutting is considered to be the competitive *norm*.

growing demand pressures eventually force the market price to rise toward the new price of production. In this case, the eventual deceleration in the rate of growth of supply is a more gradual process that largely takes the form of a less rapid expansion of the productive capacity of existing regulating capitals and the discouragement of new entrants. Within limits, it is therefore unlikely that higher wage rates will cause an absolute decline in *current* levels of output and employment.

On the other hand, if regulating firms should attempt to anticipate this process of tendential regulation by immediately marking up their prices, the consequences within the marketplace will not only be more immediate – they may also be more severe. In this case, price increases will generally result in an immediate reduction in market demand, with the severity of the effect depending on the price elasticity of demand. Thus, rather than having to adjust to a less rapid rate of expansion, the regulating capitals will be forced to suffer an immediate reduction in current output. Given that most concentrated industries (where collusion is most likely) will also tend to have relatively high levels of fixed capital investment, this reduction in output will generally take the form of lower levels of capacity utilisation. And, as noted in chapter 5, this further implies that unit fixed costs may rise substantially, causing significant reductions in profit margins.¹⁸

Since the main purpose of the markup is to protect profit margins and profit rates, this strategy clearly has important limitations that cannot be easily ignored. Thus, although firms may certainly attempt to anticipate market conditions through administered pricing policies, they cannot override those conditions. As Clifton has argued in his discussion of the competitive limits to administered pricing:

Base price estimates (or administered prices) are based upon independent data from the market. In turn they enable managers to regulate, not

18 As Semmler (1984) has noted, industries with above-average levels of fixed capital and high capital/output ratios tend to experience higher percentage increases in their total unit costs when forced to operate at lower levels of capacity. Blair (1972) uses the automobile industry to show that overhead costs may rise quite dramatically when utilisation rates are lowered. 'Had GM sold 25 percent fewer vehicles than it did in 1957, the spreading of overhead expense over the smaller output would have raised unit overhead costs from \$550 to \$733 per car and reduced profit correspondingly from \$313 to \$130' (Blair 1972, p. 473; see also Lester 1946). In the next section, we will see that the extent of the markup is further limited by the cost structure of the subdominant capitals within each industry.

dictate, market prices by evaluating market conditions, and responding accordingly ... The fact that base price is administratively estimated and may become the actual market price occasionally, that it may regulate the market, does not at all imply price fixing, as so many economists have misinterpreted the procedure to imply. Rather, it implies the systematic nature of competition and the tendency for market prices to be regulated by that force.¹⁹

In the remainder of this chapter we will abstract from the possibility of price collusion and immediate markups in order to continue to derive a number of important results that can be obtained directly from Marx's dynamic analysis of competition between and within industries. By deriving our results in this manner, we will see that many phenomena that may *appear* to be results of monopoly power (i.e. administered pricing) can actually be arrived at through Marx's analysis of competition.²⁰

Given the above limitations to immediate markups, it follows that when wage increases do occur, regulating capitals must be able to *survive* the process of tendential regulation which may take a significant period of time for new prices of production to be achieved within the actual market place. In order for regulating capitals to survive this transitional period, however, wage increases cannot cause rising unit costs to entirely wipe out the profit margins of these capitals. If profit margins are wiped out, workers may discover that by the time the wage increase has been passed along through the price structure, the regulating capitals may have also passed along!

As a result of this dynamic analysis, we therefore arrive at our first important limit to rising wage costs that is directly determined by the conditions of immediate profitability of the regulating capitals (i.e. their profit margins). In order to more precisely calculate this first limit to rising *hourly wage rates*

19 Clifton 1983, pp. 31–2.

20 Within chapter 5, we saw that administered pricing procedures can be made quite consistent with Marx's analysis of competitive 'prices of production'. Moreover, Semmler's extensive study of the literature on industrial pricing reveals that 'cost determined pricing and mark-up pricing procedures, which are usually regarded as the post-Marxian and post-Keynesian contribution to a theory of industrial and corporate pricing, are not limited to concentrated and oligopolized industries, but seem to be widespread procedures and can be found in concentrated and unconcentrated industries' (Semmler 1984, p. 101). Even more interesting, most of these studies of cost-inspired price increases were generally forced to account for time lags between cost changes and price changes (Semmler 1984, p. 82).

for regulating capitals within any particular industry, we simply divide the regulating profit margin (m) by the unit labour requirement (L/Q) of these same capitals. Hence

$$\text{Limit One} = \frac{m}{(L/Q)}$$

Going back to the numerical example in table 6.2 (on p. 208), we can easily calculate this limit for the regulating capitals of Industry A:

$$\text{Limit 1} = \frac{m}{(L/Q)} = \frac{\$5}{(20/10)} = \$2.50 \text{ per hour}$$

Clearly, if wage rates in Industry A are allowed to rise by this amount, profits will go to zero. Thus, our first limit to rising wage rates is determined by the profit margin per unit labour requirement of the regulating capitals.²¹

Before deriving this limit more systematically, it is important to differentiate the above dynamic analysis of how capitalist competition *eventually* causes relative prices to change from comparative static analyses whereby prices appear to change *instantaneously*. Within a comparative static framework, the actual dynamic process of market adjustments that is so critical to our discussion is abstracted from by merely comparing various equilibrium positions. Thus, if we had utilised comparative statics to try to analyse how the above wage increase would eventually affect relative prices, the fact that our regulating capitals must be able to survive a period with decreased profit margins can be easily overlooked. Indeed, our first limit to rising wages would appear to disappear! Although this first limit to wage increases is fairly obvious once we move to a dynamic framework, a less obvious result of this analysis is that *regulating capitals across different industries will tend to have different profit margins per unit labour requirement as a direct result of capitalist competition*. This general result can be directly derived from the previous equation (2) which determines the regulating profit margin for any particular industry:

21 In our discussion of local changes in the wage rate, we are abstracting from possible feedback effects that may cause increases in the costs of other inputs. Thus, we are essentially following Marx's original procedure in his discussion of the transformation of direct prices into prices of production. Despite continuing controversy over the transformation problem, recent empirical work has indicated that Marx's original prices of production turn out to be an extremely good first approximation of Sraffian prices (Ochoa 1984). Thus, there is good reason to believe that these feedback effects are on average quite small. See also Shaikh 2016.

$$m = r^* (K/Q) \quad (2)$$

From this equation, we can already see that the equalisation of profit rates (r) between industries requires that the profit margins (m) of the regulating capitals within each industry must be directly proportional to their respective capital/output ratios. By expressing the above capital/output ratio as the product of the capital/labour ratio and the respective unit labour requirement (L/Q), we can now rewrite equation (2) in the following manner:

$$m = r^* (K/L) (L/Q) \quad (2a)$$

Dividing through by the unit labour requirement, we can now more generally derive our first limit:

$$\frac{m}{(L/Q)} = r^* (K/L) \quad (3)$$

From equation (3), it becomes clear that the equalisation of profit rates between industries requires that the profit margin per unit labour requirement for regulating capitals must vary in direct proportion to their respective industry's capital/labour ratio. (Similar results can also be derived for the total mass of profits, $mQ = \pi$, relative to total labour requirements). Thus, as already anticipated in chapter 5, the equalisation of profit rates across industries requires industries with above-average capital intensities to enjoy a relatively high mass of profits relative to total labour requirements.²²

Comparing regulating capitals in Industry A with another set of regulating capitals within an industry of lower capital intensity, we can easily illustrate this general result. In order to simplify the following example in table 6.3, we will initially assume that wage rates for all unskilled labour are equalised at \$0.50 per hour. This will allow us to start from a position of equal wage rates so that we can subsequently show how certain patterns of wage differentiation can eventually come about. Nevertheless, it is important to note that the general results concerning Limit One have been derived from the capital/labour ratio, not from the capital/wage ratio. Thus, Limit One does not depend on the

22 Assuming equal rates of surplus value, this further implies that industries with relatively high capital intensities must also tend to enjoy what neoclassical economists have inappropriately termed a higher 'value productivity of labour' {i.e. $(w + \pi)/L$ }. Within Marx's analysis, however, the above differences in 'value productivity' are merely the result of the transformation of direct prices into prices of production. In other words, they are the result of capitalist competition between industries.

TABLE 6.3 Comparing Limit One across two different industries

INDUSTRY "A" – HIGH (C/V), (K/L) ----- > LIMIT 1								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
F	Total	Total	Output	Unit	Reg.	Reg.	K/L	<u>m</u>
I	Capital	Labour		Cost	r*	p*		L/Q
R	Adv.	Hrs.		K* =				
M	(K)	(L)	(Q)	K/Q				
A*	90C+ 10W	20	10	\$10	.5	\$15	5	\$2.50
INDUSTRY "B" – LOW (C/V), (K/L) ----- > LIMIT 1								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
F	Total	Total	Output	Unit	Reg.	Reg.	K/L	<u>m</u>
I	Capital	Labour		Cost	r*	p*		L/Q
R	Adv.	Hrs.		K* =				
M	(K)	(L)	(Q)	K/Q				
B*	50C+ 50W	100	100	\$1	.5	\$1.50	1	\$0.50

assumption of equal wage rates. Once we allow wage rates to vary within and between industries, we will further concretise our notion of the regulating conditions of production in order to allow for differential costs of labour power.

Comparing the first limit to rising hourly wage rates across the two industries in table 6.3, the results are just as anticipated. Because Industry A's capital/labour ratio is five times greater than B's (see column 7), Industry A's profit margin per unit labour requirement is also five times greater (see column 8). Thus, not only have we derived our first competitive limit to rising wage rates, but we have also discovered that this limit will *necessarily* vary according to different technical conditions of production within each industry.²³ Our res-

23 Sumner Slichter was one of the first labour economists to recognise that although a firm may have a high rate of return on its entire capital investment, its profit margin on sales may be quite small. In these industries, he therefore pointed out that the limits to rising

ults clearly indicate that industries with high capital/labour ratios and high profit margins per unit labour requirement may be able to sustain larger immediate wage increases without being forced to confront an immediate crisis of profitability. On the other hand, wage increases within less capital-intensive industries may have to be more gradually spread out over longer periods of time.²⁴

It is important to note, however, that these relatively high profit margins per unit labour requirement should not be considered 'excess' profit margins which necessarily allow capital-intensive industries to consistently pay higher wage rates over prolonged periods of time. As noted earlier, these higher profit margins are required by capital-intensive industries if they are going to receive the competitive rate of return. Thus, although high profit margins and high 'value productivity' of labour have often been considered to be evidence of monopoly power and above-average profitability, our analysis suggests that these phenomena are the direct results of the equalisation of profit rates across different industries.²⁵ Indeed, any significant reduction in these above-average profit margins will force profit *rates* below the general rate and will therefore result in a deceleration in the rate of growth of supply.

Equally important, by the end of this chapter, it will become clear that this limit is ultimately the final competitive constraint on rising wage rates which is seldom encountered in actual struggles over wages within regulating capitals. As we argued in chapter 3, given the constant downward pressure of the reserve army of labour, it is unlikely for workers to gain the required strength to seriously threaten the actual existence of their employer unless they have determined that a firm *should be shut down* as a result of extremely oppressive conditions. Thus, although the profit margin per unit labour requirement will vary quite substantially across industries, this does not imply that inter-industry wage differentials must necessarily tend to vary in direct proportion to this limit.

wages may be severely constrained for 'a small rise in costs may wipe out a high return on invested capital' (Slichter 1950, p. 88). Of course, both Marshall (1920) and Hicks (1963) also noted that the share of labour costs in total costs would have an important bearing on the firm's elasticity of demand for labour.

24 Given that most of today's low wage firms are in labour intensive service sectors, this point may have particular importance for the current struggle to raise the minimum wage to \$15 an hour. As indicated above, within labour intensive industries, significant increases in wage levels should be more gradually phased in to minimise negative employment effects.

25 See Kalecki 1943. See also chapter 5, the section on Competition between Industries.

Limit Two: The Unit Costs of Subdominant Capitals

In the previous discussion, the first limit to rising wage rates within regulating capitals was derived by analysing just how far wages could actually rise before precipitating an immediate crisis of profitability. In order for these wage increases to be *sustained* for a prolonged period of time, however, these firms must also be able to maintain their status as the regulating capitals within the industry. As explained in the previous chapter, it is this regulating status that ultimately allows these capitals to act as the practical standard for the industry as a whole. Moreover, it is the maintenance of this regulating position which ultimately permits these firms to accommodate the wage increase by eventually establishing a higher regulating price of production. In order to remain regulating capitals, however, *these capitals must also be able to maintain their status as the least-cost producers within the industry*. Thus, the next important constraint on rising wage rates arises from the dynamics of *competition within industries*.

Once regulating capitals are facing the prospect of rising wage rates, these capitals will only be able to maintain their regulating position under one condition. Rising wage costs must not increase their total unit costs beyond the unit costs of the next most efficient producers that are not experiencing commensurate wage increases (i.e. the 'subdominant capitals'). Within any industry, this competitive space for rising labour costs is therefore determined by the difference between the original regulating capitals' unit costs (k^*) and those of the subdominant capitals (k^s). In order to arrive at the next limit for rising *hourly wage rates*, we simply divide this cost differential by the unit labour requirements (L/Q) of the original regulating capitals facing the wage increase. Hence

$$\text{Limit Two} = \frac{(k^s - k^*)}{(L/Q)^*}$$

In order to understand how this more restrictive limit will tend to make its presence felt, let's assume for the moment that rising wage rates have significantly exceeded this limit and have therefore caused our original regulating capitals to lose their status as least-cost producers within the industry. Under these circumstances, the subdominant capitals now possess the lowest unit costs and the highest reproducible profit margins. Hence, these capitals now also possess the competitive cost structure that will tend to be expanded within the industry.

Because these subdominant capitals have become the new regulating conditions of production, the centre of gravity for market prices will now be deter-

ined by *their* individual price of production. Using the superscript (^s) to designate these new regulating capitals, the industry's new price of production is determined in the following manner:

$$P^s = k^s + r^* (\kappa/Q)^s \quad (4)$$

Before and immediately after the above wage increase, these subdominant capitals will normally be receiving profit rates that are *below* the general rate for the economy as a whole. Thus, when the uncompetitive wage increase now causes these formerly subdominant capitals to become the new regulating conditions of production, the rate of growth of supply will still tend to decelerate relative to demand. Hence, as in the previous case, prices will also still tend to rise. Nevertheless, it is important to point out that the new regulating price of production (P^s) will normally not rise high enough to allow the old regulating capitals to receive the general rate of return.

This tends to be the case for two reasons. First, we have already assumed that the above wage increase has resulted in lower unit costs for the subdominant capitals relative to our original regulating capitals [i.e. $k^s < k^*$]. Second, the fact that the subdominant capitals are generally less efficient than the original regulating capitals also implies that they will tend to have lower capital/output ratios [i.e. $(\kappa/Q)^s < (\kappa/Q)^*$]. Because these two factors are the key variables in the determination of the price of production, it will also tend to be the case that $P^s < P^*$.

Thus, for the original firms that were forced to accept these wage increases which exceeded our second competitive limit, the long-term results could become quite negative. Because rising relative prices will no longer allow these capitals to achieve the general rate of profit for the economy as a whole, these wage increases will cause them to endure a *sustained* period of below average profit rates. In addition, these capitals will no longer possess the lowest unit costs. Depending on the severity of this cost disadvantage, these firms may become increasingly vulnerable to competition from the *new regulating capitals* – particularly during slack periods when greater overhead costs may tend to exacerbate their competitive disadvantage.

To more clearly illustrate how this second limit would tend to operate within a particular industry, we can go back to our previous example. In table 6.4 we have duplicated the previous numbers regarding our regulating capitals (A^*). Given this information, we discovered that the initial limit for the hourly wage increase was determined by the profit margin per unit labour requirement (i.e. \$2.50 per hour; see column 8). Now, however, the dynamics of competition within Industry A require us to consider the unit costs of the subdominant

TABLE 6.4 *Regulating and subdominant capitals in Industry A*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
FIRM	Total Capital Adv. (K)	Total Labour Hrs. (L)	Output (Q)	Unit Cost k^* , k^s	r^* , r^s	Reg. P^*	K/L	$\frac{m}{L/Q}$
A*	90C + 10W	20	10	\$10	.5	\$15	5	\$2.50
A ^s	72C + 28W	56	8	\$12.50	.2	\$15	1.8	

capitals that are also producing within this industry. Let us therefore assume that the costs of these subdominant capitals (A^s) are as indicated in the bottom row of table 6.4.²⁶

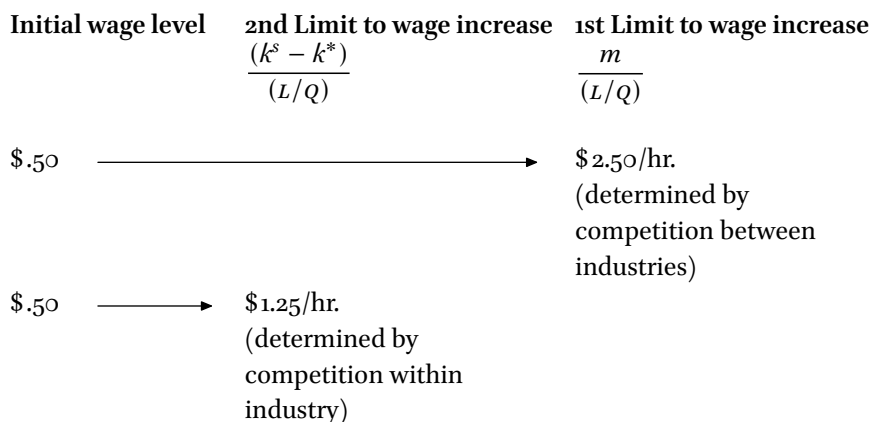
Given that the unit costs (k^s) of the subdominant capitals are equal to \$12.50 (see column 4), the above argument suggests that wage increases that push the unit costs of the original regulating capitals significantly above this amount will be increasingly difficult to sustain within ongoing capitalist competition. In order to calculate the next limit to rising hourly wage rates, we simply take the difference in unit costs ($k^s - k^*$) and divide through by the unit labour requirements of the initial regulating capitals:

$$\text{Limit Two} = \frac{(k^s - k^*)}{(L/Q)_{A^*}} = \frac{\$12.50 - 10.00}{(20/10)} = \$1.25$$

Clearly, if the wage increase in the regulating capitals should go beyond \$1.25, these capitals will no longer be the least-cost producers within Industry A. Consequently, the relative price structure will no longer adjust to accommodate this wage increase, and the original regulating capitals will face a sustained period of below average rates of return.²⁷ Thus, we have now seen that the com-

26 Here we assume that the final selling price is roughly the same for all firms within the industry. Unit constant capital costs are also equal for both firms. Thus, the variation in unit costs is solely determined by differences in required labour time.

27 For a more detailed illustration of why relative price adjustments will no longer allow the original regulating capitals to receive an average rate of return, see Botwinick 1988, pp. 254–5.

FIGURE 6.1 *Summary of Limits One and Two*

petition of capitals within an industry provides us with an additional, more narrow set of competitive pressures which will tend to restrict rising hourly wage rates within our original regulating capitals. These results are summarised in figure 6.1.

To avoid these more narrow limits to wage increases, effective unions will often attempt to achieve industry-wide wage patterns so that *all* capitals within the industry are forced to accept each negotiated wage increase. As John R. Commons pointed out many years ago, one of the primary purposes of unionism is to try to take wage rates *out of the competition of capitals*. In order to accomplish this, unions must continually organise all of the new regulating capitals that enter the industry as well as many of the older, subdominant capitals that continue to exist. Under these circumstances, workers within the regulating capitals will potentially be able to achieve larger wage increases because higher wage costs will be generalised and the competitive limit to rising wage rates will be forced back up to the initial limit, which is determined by the profit margins of regulating capitals.

As a number of contemporary writers have pointed out, one of the key factors behind the alarming decline of union bargaining power in the United States has been the long-term erosion of the highly effective industrial wage patterns that were initially established by the CIO in the late 1940s.²⁸ Indeed, although the intensification of international competition since the 1970s is often seen as the primary force behind the decline of union bargaining power, the initial process of erosion actually began during the 1950s as an

28 See Craypo 1981; Davis 1986; and Moody 1988.

increasing number of industries moved many of their plants to the low wage, nonunion South.²⁹

In the earliest stage of union decline, older low-wage plants in the South merely played the role of 'subdominant capitals', which tended to constrain the rate of growth of wages in the unionised North. Although the low-wage rates in the South could have eventually allowed some of these less efficient capitals to become the new competitive standard within their respective industries, the long-term failure of the labour movement to effectively organise the South ultimately enticed capital to pursue the 'best of both worlds'. Thus, firms not only took advantage of the low-wage rates in their older plants, but they increasingly located their newest, state-of-the-art plants in the South and other greenfield areas.

The first industries to move were the more labour-intensive industries like textiles, apparel, furniture, and footwear.³⁰ These industries were not only the most mobile, but they also had the most to gain due to the relatively high share of labour costs in total costs. Moving into the 1960s and 1970s, however, even the more heavily capitalised industries such as electrical equipment, rubber tyres, meat-packing, and auto eventually needed to build new plants. Thus, as their older northern plants continued to depreciate and the wage differential between union and nonunion workers continued to grow, they also increasingly moved South. In fact, from 1962 to 1978, roughly 86 percent of all new manufacturing jobs were created in the South and West, outside of the heavily unionised Northeast and Midwest.³¹ As numerous labour analysts have therefore pointed out, the failure to maintain effective levels of union organisation within these new low-cost plants took a serious toll on the US labour movement's ability to improve wages and conditions within all of these industries.³² Terming the postwar defeat of Southern labour organisation 'the Achilles heel of American unionism', Davis argues that 'in virtually every industry the supposedly "marginal" periphery of non-union production has in fact been the

29 One of the earliest extensive studies of the locational movement of US industries was conducted by Victor Fuchs in 1962. Between 1929 to 1954, Fuchs estimated that the 'attraction of abundant, inexpensive and unorganised labour in the South' accounted for one third of all inter-divisional shifts in employment (Fuchs 1962, p. 259). For a useful analysis or the more contemporary period, see Bluestone and Harrison 1982. See also Sawers and Tabb 1984.

30 Fuchs 1962.

31 Haren and Holling 1979.

32 Craypo 1981; Bluestone and Harrison 1982; Davis 1986; and Moody 1988.

redoubt from which, during the 1970s, major assaults have been launched against wage levels and bargaining patterns'.³³

Of course, in the late 1960s, as capital's relentless search for low-wage labour increasingly resulted in capital flight outside of the United States, the task of organising all of the important low-cost producers (both regulating and non-regulating) increasingly took on international dimensions. Indeed, even industries such as textiles and electronics assembly, which were a key part of the industrial base of the 'new South', eventually migrated across US borders.³⁴ Thus, as we will argue in more detail in chapter 7, our analysis of regulating capitals and competitive wage determination strongly suggests that Marx's old slogan 'Workers of the world unite' has become increasingly relevant as both capital and labour markets become more and more internationalised.

Further Implications for Inter- and Intraindustry Wage Patterns

At this point it is clear that the presence of differential conditions of production within industries creates an important foundation for the development of intra-industry wage differentials. Far more surprising, however, a closer look at the second limit to rising wage rates also reveals important implications for differential wage patterns between industries. Given similar unit cost differentials within each industry, the potential range of intra-industry wage differentiation that is determined by this second limit will tend to vary directly with the ratio of total unit costs to unit labour requirements.

To illustrate this point, let us assume that the cost structures of two hypothetical industries (A and B) are such that the percentage difference in unit costs is the same for both industries. Thus

$$\left[\frac{k^s - k^*}{k^*} \right]_A = \left[\frac{k^s - k^*}{k^*} \right]_B$$

33 Davis 1986, p. 137. According to Moody, 'Prior to the absolute decline in manufacturing jobs that began in the 1980s, the proportion of unionized workers in manufacturing dropped from a high point of 42.4% in 1953 to 32.3% in 1980, a decline of 24%'. By the mid-1980s, 'nonunion workers accounted for over 50% of metal, machine and electrical equipment workers, 69% of all garment and textile workers; 64% of wood, paper, and furniture workers; and 67% of food-processing workers' (1988, p. 99).

34 According to Bluestone and Harrison, 'Almost one half of the jobs lost to plant closings (and relocations) during the 1970s occurred in the sunbelt states of the South and the West' (1982, p. 9).

If we now divide through by the unit labour requirements ($l^* = L/Q$) of the respective regulating capitals, we get the following:

$$\frac{\left[\frac{k^s - k^*}{l^*} \right]_A}{(k^*/l^*)_A} = \frac{\left[\frac{k^s - k^*}{l^*} \right]_B}{(k^*/l^*)_B}$$

Rearranging terms, we then arrive at the following results:

$$\frac{\left[\frac{k^s - k^*}{l^*} \right]_A}{\left[\frac{k^s - k^*}{l^*} \right]_B} = \frac{(k^*/l^*)_A}{(k^*/l^*)_B}$$

Thus, given equal percentage differences in unit costs, the second potential limit to rising wage rates is directly proportional to the ratio of unit costs to unit labour requirements [i.e. (k^*/l^*)].

To further illustrate and summarise all of the results up to this point, it is once again useful to continue our original numerical example. Accordingly, table 6.5 now includes regulating and subdominant capitals in both industries A and B.

As discussed earlier, we have constructed the cost structures of the subdominant capitals so that there are equal percentage differences in unit costs for each industry. From here we then derived both sets of limits for each industry (A and B). As anticipated, given that the differences in unit costs are the same for both industries, the second limit to rising wage rates is directly proportional to the (k/l) ratio for the regulating capitals in each respective industry (see columns 7 and 8). Hence

$$\frac{\left[\frac{k^s - k^*}{L/Q} \right]_A}{\left[\frac{k^s - k^*}{L/Q} \right]_B} = \frac{\$1.25}{.25} = \frac{5}{1} = \frac{(k/l)_A}{(k/l)_B}$$

Although both sets of regulating capitals have similar competitive advantages within their own industries, the potential range for wage differentiation within Industry A is far greater.³⁵

35 In the above numerical example, it is important to note that the absence of fixed capital also implies that $k/l = \kappa/L$. Thus, the identical results also appear to hold true for overall capital/labour ratios. Once we allow for the presence of fixed capital, however, this will no longer strictly be true. As we originally noted when we first introduced our example, once fixed capital is introduced, unit costs are no longer equal to total unit investment costs. Thus, (k/l) no longer equals (κ/L) . In order to argue that the above potential limit

TABLE 6.5 Comparing Limits One and Two across two different industries

INDUSTRY 'A' – HIGH (C/V), (K/L) ----- > Limit 2 -> Limit 1									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
F I R M	Total Capital Adv. (K)	Total Labour Hrs (L)	Output (Q)	Unit Cost k*, k ^s	r*, r ^s	p*, 	(k/l)* = (K/L)*	k ^s -k* (L/Q)*	m L/Q
A*	90C + 10W	20	10	\$10	.5	\$15	5	\$1.25	\$2.50
A ^s	72C + 28W	56	8	\$12.50	.2	\$15			
INDUSTRY 'B' – LOW (C/V), (K/L) ----- > Limit 2 -> Limit 1									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
F I R M	Total Capital Adv. (K)	Total Labour Hrs (L)	Output (Q)	Unit Cost k*, k ^s	r*, r ^s	p*, 	(k/l)* = (K/L)*	k ^s -k* (L/Q)*	m L/Q
B*	50C + 50W	100	100	\$1	.5	\$1.50	1	\$0.25	\$0.50
B ^s	40C + 60W	120	80	\$1.25	.2	\$1.50			

At the very least, these results suggest that given roughly similar cost differentials within various industries, highly capital-intensive industries possess a greater potential range for wage differentials to develop within the confines

to rising wage rates will also tend to correspond with an industry's overall capital/labour ratio, it is necessary to argue that high (k/l) ratios tend to be strongly correlated with high (κ/L) ratios. Within manufacturing, high (κ/L) ratios do tend to be correlated with high materials costs per unit labour, high energy costs per unit labour (Howell 1982, p. 129), and high depreciation costs per unit labour. Hence, this can generally be shown to be the case.

of vigorous intra-industry competition. Within the United States, it is generally recognised that labour-intensive industries are far more vulnerable to low-wage competition from abroad relative to capital-intensive industries. All we have done here is to more formally derive these results from our analysis of capitalist competition between and within industries. And, once again, it is the presence of real capitalist competition that generates the potential for these differential wage patterns to develop, not its absence.

Limit Three: The Differential Costs of Obstructing Wage Increases

In the previous two sections we argued that the real conditions of capitalist competition between and within industries provide a limited space for workers to increase their wage rates within the regulating capitals of any industry. At this level of abstraction, we have therefore developed an initial analysis of the regulating capital's 'ability to pay' higher wage rates within the confines of capitalist competition. However, we have not yet established *why* these capitals would ever concede to such a wage increase. Indeed, because we have also argued that wage increases would not be immediately passed on in higher prices, we maintained that higher wage rates will generally force these regulating capitals to endure a transitional period where profit margins and profit rates may be adversely affected for a considerable length of time. Thus, all other things remaining constant, there is every reason to argue that capitalists will choose to *resist or obstruct* such wage increases – even if these increases should remain within the competitive limits that have already been outlined.³⁶

Fortunately for workers, the determination of the wage rate is not merely a question of capitalist preferences. Once workers become organised either formally or informally, they can begin to impose significant costs on employ-

36 In labour market segmentation arguments where it is often assumed that 'core' firms can simply pass on wage increases to the consumer, it is difficult to explain why these large concentrated firms would ever seriously contest worker demands for higher wages. As Marx pointed out, 'If it were in the power of the capitalist producers to raise the prices of their commodities at will, they could and would do so without a rise in wages ... The capitalist class would never resist the trades' unions' (Marx 1967b, p. 340). Given that 'core' firms in auto, steel, and many other industries have often chosen to obstruct wage increases quite vigorously, this has generated a serious anomaly for arguments that are based on monopoly pricing power. In fact, between 1945 and 1960, strikes took place within the steel industry in five out of ten national negotiating rounds (Craypo 1986, p. 176). See also Levinson 1967; S. Friedman 1984; and Hodson 1986.

ers who would otherwise prefer to obstruct worker efforts to raise wages.³⁷ Through the use of strikes, boycotts, slowdowns, and other tactics, effective unions can eventually force these unwilling capitals to seriously consider whether it might be cheaper in the long-run to concede to certain minimal wage demands, rather than endure these rising 'costs of obstruction'. And similar to other choice-of-technique decisions facing the firm, competitive pressures will compel these capitals to adopt the option that will hopefully minimise costs.³⁸

Unlike other choice-of-technique decisions, however, the determination of the most effective profit maximising strategy at the bargaining table is a complex task that is subject to far more than the normal degree of uncertainty. In addition to considerations related to technical and market factors, firms must also consider numerous political factors that may affect the potential militancy and organisation of the workforce. Furthermore, in certain situations capitalists may decide to ignore short-run cost considerations and conduct a prolonged and highly costly battle against its workers. Here, the longer run goal is to break the union and seriously weaken workers' abilities to press for higher wage rates for a sustained period of time into the future.³⁹

Because the many factors that ultimately affect the bargaining positions of both capital and labour are often quite complex, this section will merely identify some of the most critical structural factors that can often have an important influence on the bargaining process across various industries.

37 Although this book emphasises formal union organisation as the most effective vehicle for worker resistance, it is important to recognise that nonunion workers can sometimes impose significant costs on capital through less formal types of collective resistance. As noted in chapter 2, classic discussions of informal worker resistance through 'systematic soldiering' can be found in Taylor 1911 and Mathewson 1931. As Lloyd Ulman (1990) recently pointed out, one of the critical weaknesses of efficiency wage theories is that they typically place far too much emphasis on individual worker behaviour and generally ignore the importance of concerted action on the part of both union and nonunion workers.

38 For an excellent argument regarding the critical importance of workers' ability to impose costs on their employers through strikes, see Burns 2011. See also Botwinick 1998.

39 One of the most dramatic results of the decline in unionisation levels within the United States is that corporations have become increasingly aggressive in pursuing this more draconian option. Following the infamous lead of J.P. Stevens in the 1970s and Ronald Reagan's all-out attack on air traffic controllers (PATCO) in 1981, the 1980s witnessed numerous vicious attacks on labour unions by companies such as Phelps Dodge, Greyhound, USX, Hormel, and The NY Daily News. For an excellent analysis of the changing balance of power that led to this corporate assault on unions, see Moody 1988, chap. 5. Abundant evidence for increasingly hostile employer attitudes can also be found in Freeman and Medoff 1984 and Craypo 1981.

Within this discussion of the third limit to rising wage rates, we will therefore concentrate on key structural factors that will tend to either enhance or diminish workers' abilities to impose 'costs of obstruction' on their respective employers.

As long as union wage demands do not seriously exceed the competitive constraints that have been outlined above, the union's potential ability to impose costs of obstruction on its regulating capitals is a good first approximation of its ability to obtain higher wage rates. By developing the potential to create these costs of obstruction, workers essentially create a competitive space for wage costs to rise. As long as wage demands do not significantly exceed these potential costs of obstruction, firms will generally find it cost-effective to concede to the union's demands – at least in the short-run. Thus, not only do these costs of obstruction explain why workers are able to achieve any wage increase at all; they also provide a third and final set of concrete factors that will tend to place important internal constraints on rising wage rates within regulating capitals.⁴⁰

Before beginning our discussion of the costs of obstruction, it is important to emphasise that this section will necessarily entail our most concrete level of analysis. Because the most concrete phenomena are also the most complexly determined, it will not be possible to develop the same degree of analytical precision that can be achieved at higher levels of abstraction. As radicals and institutionalists have often suggested, it is precisely at this very concrete level that institutional and political factors can become extremely important in the wage determination process. Thus, we must be careful not to make our analysis so determinate that these institutional and political factors can no longer vitally influence that process.

40 Given our emphasis on the 'costs of obstruction' that workers can collectively impose on their employer, readers familiar with Lindbeck and Snower's 'insider-outsider' theory will recognise a number of similar arguments within this section (see Lindbeck and Snower 1988, chap. 7). Because these authors graft their arguments onto the corpus of neoclassical economics, however, there are several crucial differences that should not be overlooked. First, these writers firmly accept the marginal productivity theory of wage determination. Thus, while they assume that workers in the 'competitive' (or secondary) sectors receive wages equal to their marginal revenue products, organised 'insiders' within primary firms are able to capture 'rents' by raising 'turnover costs'. Second, Lindbeck and Snower argue that their theory is a complement to efficiency wage theory, rather than a substitute. Moreover, they suggest that unions are a key cause of persistent involuntary unemployment. Last, but by no means least, their entire analysis of wage determination is located within the neoclassical framework of perfect and imperfect competition.

On the other hand, we must also be careful not to lose sight of powerful underlying forces within the capitalist economy that tend to limit and channel these more concrete political factors. One of the main purposes of this book is to demonstrate that the most analytically powerful way to approach these concrete factors is to properly locate them within the context of Marx's analysis of competition and accumulation. The aim is therefore not to deny the importance of political and institutional factors, but to better understand them by developing a framework that enables us to consider their underlying dynamics and potential limits. The point, in other words, is to get a firmer understanding of what workers and their unions can and cannot generally expect to accomplish within the confines of capitalist competition and the laws of accumulation.

By exploring the implications of the costs of obstruction as a potential limit to wage increases, we will soon see that the presence of different technical conditions of production will provide yet another set of concrete limits to rising wage rates that will vary substantially across industries. And once again, we will develop our argument without relying on any of the accepted assumptions of monopoly theory. As in the previous two sections, we will continue to build on our previous discussion of the limits to rising wage rates within the regulating capitals of various industries.

Factors Affecting the Immediate Bargaining Situation

From the above discussion of the costs of obstruction we can now see that as workers become increasingly militant and press for higher wages, regulating capitals will eventually be forced to assess the relative costs of obstructing these increases versus allowing wages to rise.⁴¹ What we must now also understand is that this assessment of the potential costs of obstruction will not only be determined by the momentary level of organisation and militancy of the workers involved. It will also be critically determined by each capital's particular

41 Abstracting from the neoclassical assumptions of marginal productivity theory, our discussion of the relative costs of allowing wages to rise bears some resemblance to the collective bargaining models that were developed by neoclassical labour economists in the 1950s (Chamberlain 1955 and Cartter 1959). As Harold Levinson once noted, however, these bargaining models suffered from a serious weakness because they 'provided no insight into the more difficult task of identifying, and ... quantifying those variables that were dominant in affecting the power position of the parties in actual bargaining situations' (Levinson 1966, p. 9). By comparing critical structural variables across industries and by incorporating some of Levinson's own insights within Marx's competitive framework, we hope to lay the foundations for accomplishing this more difficult task.

technical conditions of production. Indeed, some of these technical conditions may even have an important feedback effect on workers' potential militancy by helping to either facilitate or inhibit effective worker organisation.

Perhaps the most obvious structural factors to be considered here are those pertaining to the 'scale' of the various factories and enterprises that make up the regulating conditions of production within any particular industry. Here we will consider two scale factors: the absolute size of the productive workforce within each plant (or workplace), and the absolute level of fixed capital investment. We will then go on to address the issues of capital intensity, market structure, and the overall financial resources of the firm.

Plant Size – Number of Productive Workers

As Marx noted many years ago, the development of large socialised workplaces within the modern factory system often provides a powerful impetus for the growth of working class consciousness and organisation.⁴² In more modern times, the huge concentration of workers in industries such as auto, steel, rubber tyres, and electrical equipment was a critical factor in the development of some of the most militant and most powerful CIO unions in the 1930s and 1940s. Moreover, a number of recent empirical studies have also tended to confirm the importance of plant size in determining the extent of unionisation across different industries.⁴³

In addition to facilitating the overall organisation and militancy of the workforce, large numbers of workers can increase the union's ability to raise the costs of obstruction during various forms of labour disputes. For example,

42 'As the number of the co-operating labourers increases, so too does their resistance to the domination of capital, and with it, the necessity for capital to overcome this resistance by counter-pressure' (Marx 1967a, p. 331). See also Marx 1967a, p. 763.

43 Both economists and sociologists have suggested that factors such as economies of scale in union organising, and the presence of less personal management styles within large plants, can largely account for the strong positive correlation between levels of unionisation and plant size (see Masters 1969, and Hodson 1986). As Freeman and Medoff (1984) have also pointed out, this tendency for large plants to become unionised has evidently not been lost on large nonunion employers who often provide union scale wages and benefits in order to prevent unionisation (see also Foulkes 1980). Within the post-World War II period, there is substantial evidence suggesting that industries such as auto, steel, rubber tyres, and electrical equipment have intentionally downsized and decentralised their newer production facilities in order to minimise the opportunity for collective worker resistance. Moody has pointed out that between 1954 and 1977, 'the average number of workers per plant declined from 233 to 124' (1988, p. 101). See also Bluestone and Harrison 1982.

in industries that employ relatively small workforces within each plant (e.g. chemicals and oil refining), it is often possible to utilise white-collar personnel and a small number of strikebreakers to keep plants running during a strike.⁴⁴ On the other hand, in plants with very large workforces, firms can frequently be forced to shut down their operations completely. Thus, for the latter, the costs of obstruction posed by an actual strike situation can potentially be much higher. In nonstrike situations, large, concentrated workforces can also tend to raise the costs of obstruction by helping to facilitate job actions such as slowdowns and other forms of work stoppages within the plant. Putting all of these factors together, it is not surprising that a number of empirical studies have also found a strong correlation between high wage rates and large plant size across industries.⁴⁵

Fixed Capital and the Mobility of Labour

Another key scale factor that will tend to enhance workers' abilities to impose costs of obstruction on their employers is the level of fixed capital investment. To see why this tends to be the case, let's again consider a potential strike situation where workers in the regulating capitals of a particular industry have warned their employers that a strike is imminent unless their wage demands are met. If these capitals should decide to resist the union through a prolonged lockout, varying levels of fixed capital investment will now impose very different costs on regulating capitals within each particular industry. Those regulating capitals with very large fixed capital investments will have to sustain much higher overhead costs relative to capitals with small fixed capital investments. Furthermore, capitals with extremely expensive plant and equipment will be particularly vulnerable to sabotage, slowdowns, and many other tactics utilised by workers either before, during, or after the strike.

As another possible strategy to obstruct wage increases, employers may also consider taking advantage of the *mobility of labour* by bringing in replacement

44 Craypo 1981.

45 See Mellow 1982; Rosen 1970; Masters 1969; Haworth and Reuther 1978; Freeman and Medoff 1984; and Hodson 1986. Within efficiency wage theories, it is often argued that large plants pay higher wages because it is more difficult to monitor the shirking of individual workers. As we pointed out in chapter 2, however, many of these large, highly capitalised plants utilise deskilling technologies and various forms of machine pacing that are painstakingly designed to minimise monitoring problems and maximise management control over labour intensity. Thus, as we have repeatedly maintained throughout this work, the far more critical problem of management control stems from *collective worker resistance*.

workers who would be willing to work for lower wages. But in the real world the mobility of labour is never 'perfect' and it does not always come cheap. In order to hire a new labour force, these capitals will have to break the union and often communities and families with it.⁴⁶ And to do this, firms will often have to sustain many of the same differential costs of obstruction that would normally be entailed in the above strategy of waging a prolonged lockout. Moreover, the differential costs of reproducing their particular labour forces with all of the requisite skills and training would also have to become part of their cost assessment.

Finally, if our regulating capitals should decide to explore the possibilities of utilising the *mobility of capital* in order to take advantage of cheaper labour located elsewhere, different levels of fixed capital investment will once again impose very different costs of relocation on various regulating capitals. As we pointed out previously, capitals with high levels of fixed capital investment have historically tended to wait for considerable periods of time until their current plants are sufficiently depreciated (or new additional plants are required) before relocation is considered as a viable option.⁴⁷ Nevertheless, as the differential between the high wages of their unionised workforce and the low wages of their potential nonunion workforce continues to grow, even these capitals will eventually take advantage of the mobility of capital in order to reduce their labour costs.⁴⁸ In sharp contrast to these heavy industries, light manufacturing industries such as electrical consumer goods have tended to be extremely mobile. My first experience in the labour movement was as an inplant union organiser within a brand new factory of approximately 300 minimum wage assembly workers who were producing cable TV converters for OAK Industries.

46 The pivotal 1985 struggle at Hormel in Austin Minnesota was a tragic case in point. See Green 1990.

47 Exceptions to this general rule are industries such as the airline industry which are both highly capital intensive and relatively mobile.

48 In the mid-1940s, the electrical equipment industry was one of the first heavy industries to aggressively pursue this option in the US South, with GE and Westinghouse taking the lead (see Emspak 1972; Shatz 1983; and Kochan et al. 1986). According to Craypo, this strategy was quite effective: 'From near parity following WWII, wages and benefits of electrical-product workers had fallen \$2–3 per hour behind those for auto workers by 1966' (Craypo 1981, p. 162). Thus, electrical equipment was one of the first highly unionised 'core' industries to begin the slide toward secondary wage rates as a result of aggressive union busting. Since the 1970s, other highly capitalised industries such as auto, rubber, and meat-packing have followed suit by utilising parallel production sites, multiple sourcing, and subcontracting in order to gain more 'flexibility' and hence, more power in their encounters with unions (Bluestone and Harrison 1982).

Although it took us over six months to win our organising drive, the company took only three months to completely close down the plant and move its production elsewhere. The machinery and assembly lines were simply loaded onto several tractor trailers, and the corrugated steel plant was quickly converted to other uses.

In sum, contrary to the neoclassical assumptions of perfect competition, neither the mobility of capital nor the mobility of labour is ever perfect. Both are critically determined by the technical conditions of production between and within industries, and both of these processes can sometimes take more than a decade to make their presence felt.

It is important to note here that the above discussion of the real conditions of labour mobility does not imply that unions have either the power or the desire to *block* the mobility of labour into their respective industries. As noted in chapter 4, unless they are craft unions that have the ability to control apprenticeship programmes, unions will normally attempt to merely *raise the costs* of labour mobility. By imposing these higher costs of mobility on their employers, they are ultimately attempting to prevent employers from utilising the reserve army of labour to depress their wage rates. Thus, additional workers can be hired, but not as replacements for those already employed, and not at lower wage rates. This is quite different from arguing (as many neoclassical economists do) that unions generally have the monopoly power to block the entrance of other workers into their plants.⁴⁹

By developing our argument in this manner, we can see that wage differentials between union and nonunion workers can actually become quite sizable and quite persistent without the presence of substantial 'barriers' to the mobility of labour. This is an important point for two reasons. First, unlike the initial arguments of the segmentationists, it does not require us to assume that there is extremely limited mobility of labour between low- and high-wage sectors

49 Within the past three decades, the proliferation of two-tiered wage structures has been a growing sign that unions are no longer strong enough to impose these costs of mobility on their employers (Slaughter 1983). As we noted earlier, these two-tiered systems are a desperate and terribly short-sighted attempt by organised labour to maintain the wage rates of senior workers while allowing capital to reduce the wages of young workers coming in. Of course, as union solidarity is seriously eroded in the long-run, this will spell disaster for all workers, young and old. As one labour analyst eloquently remarked, these multitier wage concessions 'are eroding inter-generational solidarity, ensuring, in the guise of protecting the privileges of seniority, that older workers are more vulnerable to replacement to exactly the extent that younger workers are made more exploitable' (Davis 1986, p. 103).

in order to explain the persistence of substantial inter-industry wage differentials. As noted in chapter 2, this original claim has not been clearly borne out in empirical studies of labour mobility between 'core' and 'periphery' sectors.

More important, this argument also presents Marxist and radical economists with a useful foundation to begin to explain how other more discriminatory wage differentials between black and white (or male and female) workers can also be perpetuated *within highly competitive economies*. As conservative economists have often been eager to point out, if low-wage black workers are truly as productive as white workers, then enterprising employers who are more interested in profit maximisation than discrimination will eventually find it profitable to hire them. Thus, in the long-run, employers who are paying higher wage rates as a result of their racist hiring practices will eventually be forced to change those policies under competitive pressure.

Given this fairly powerful competitive argument, radical economists have generally been forced to rely on theories of monopoly and the dual economy in order to explain why competitive pressures have not yet eliminated these long-standing differentials between black and white workers (or male and female workers). Radical labour market segmentationists have also implied that capitalists across the economy have essentially conspired to maintain these differential wages and conditions among black and white (and male and female) workers to divide and conquer the working class.

As Milkman has correctly pointed out, however, arguments that primarily emphasize the class-wide designs of capital tend to ignore the fact that employers often have highly contradictory interests.⁵⁰ Thus, while capital as a class may clearly benefit from a weakened and segmented workforce, 'rigid sex- and race-typing of jobs may create difficulties for individual employers in obtaining the labour supplies they require at minimal costs, precisely because wage differentials are likely to be the key underpinning of occupational segregation'.⁵¹ In other words, the relentless forces of capitalist competition will often place strict limits on these class-wide designs.

Within our analysis of competitive wage determination, unified actions by capital are no longer required in order to explain the alarming persistence of these wage differentials. It is also no longer necessary to argue that capitalist competition has been seriously restricted. Although many 'enterprising' employers may be willing to hire equally productive black workers at lower wage rates, *the above analysis suggests that there are always significant costs*

50 Milkman 1980.

51 Milkman 1980, p. 104.

to bringing in low-wage workers in general – regardless of their particular race or gender. Furthermore, if nondiscriminating employers are ultimately forced to pay these costs of tapping into low-wage labour reserves, we can no longer assume that discriminatory hiring practices will necessarily create a serious competitive disadvantage for racist and/or sexist employers. Given these costs, it is also more likely that nondiscriminating employers will primarily attempt to tap into these sources of cheap labour either by building new plants in nonunion regions or by moving into different industries that are not yet effectively organised.

Of course, the next critical step in this discussion would then be to explain why both people of colour and women have historically come to be disproportionately represented within the various low-wage sectors of the reserve army. As noted in chapter 4, such an analysis would also have to bring in all of the important ways that white male workers (as well as employers) have often contributed to this process of discrimination and segregation. Thus, although the many determinations of wage differentials based on race and/or gender discrimination are far more complex and clearly have certain unique dynamics, it may nevertheless be possible to view the problem of black/white (and male/female) differentials as an especially disturbing example of the more general problem of competitive inequality that is being discussed here.⁵²

52 For interesting attempts to link up the above classical Marxist analysis of wage differentials with the question of persistent racial discrimination, see Darity 1989, Williams 1991, and Mason 1993. Using a somewhat different framework, Shulman (1984) has also made an important contribution to this discussion by developing an analysis of the various costs that employers must face if they should attempt to end their discriminatory hiring practices. One of the key issues in the project of building a competitive explanation for the persistence of race and sex discrimination will be to try to disentangle those dynamics that are actually part of the more general phenomena of competitive wage determination, from the more concrete historical and institutional dynamics that have led to these particularly harmful forms of labour market inequality. As Adolph Reed (2015) and others have correctly pointed out, the historical role of the state is also absolutely critical in developing a useful analysis of the political economy of race and class – particularly within the United States. For the critical historical moment when black indentured servants were systematically separated from their white counterparts and transformed into chattel see Takaki 1993, Chapter 3. For an excellent discussion of the ‘reconstruction of black servitude after the civil war’, see Steinberg 1981, Chapter 7. For an astute analysis of how the postwar ‘grand bargain’ and its two tiered framework of private vs. public sector protection and benefits reinforced social hierarchies within the working class, see Reed and Dudzick 2015. As these authors note, ‘Racial and gender segmentation built into the semi-private social wage system created by New Deal social policy and the collective bar-

Level of Capital Intensity (κ/L)

Up to this point, we have suggested that large workforces and high levels of fixed capital investment may be important factors enhancing worker abilities to raise the potential costs of obstruction, and hence *total wage costs*. We have not yet discovered, however, whether these varying costs of obstruction will also provide the basis for differential limits to rising *hourly wage rates*. It is here that the capital/labour ratio, once again, becomes important.

As noted previously, firms attempting to develop their bargaining strategies must ultimately weigh the relative costs of obstructing each wage increase versus allowing wages to rise. Within this relative cost assessment, it can easily be shown that high capital/labour ratios will often tend to tip the balance in favour of the wage increase. Clearly, as κ/L rises, total wage costs tend to decrease as a percentage of total costs.⁵³ Thus, for any given increase in hourly wage rates, the higher the capital intensity, the smaller the effect on total costs. If workers are effectively organised and can already impose high costs of obstruction on their employers due to their large concentrated numbers and relatively high levels of fixed capital, then a high capital/labour ratio will greatly enhance their ability to increase hourly wage rates. Indeed, the potential costs of obstruction will tend to be quite high relative to the costs of allowing hourly wage rates to rise.

On the other hand, workers within industries that are characterised by high capital intensity and *small, isolated workforces* may not be able to take advantage of this relative cost factor because their collective ability to impose costs on their employers may be seriously impaired. Similarly, industries that are in the process of experiencing sharp increases in capital intensity which result in both systematic deskilling and large absolute decreases in employment via labour displacing technology can often generate serious downward pressures on wage rates.⁵⁴ Thus, high capital intensity alone is not a sufficient indicator of strong worker bargaining power.

Given that many 'core' industries have historically possessed *all three of these favourable conditions* (high levels of fixed capital investment, high capital intensity, and large concentrated workforces), workers within these industries have had a number of important advantages in their struggles to raise hourly

gaining regime implanted a logic that reproduced a pattern of invidious inequalities over time' (Reed and Dudzick 2015, p. 354).

53 Semmler 1984 and Howell 1982.

54 Over the past two decades, Craypo (1981) argues that this exceptionally destructive type of technical change has been an important contributing factor in the sharp declines in union bargaining power in the printing, coal, and rubber tyre industries.

wage rates. The reader should note, however, that none of these advantages stem from any form of monopoly power or the absence of competition in either the product and/or labour market.

*Market Structure: Number of Firms and Conditions of Entry/Exit
versus Market Concentration and Monopoly Power*

In our initial discussion of the potential for rising wage rates within regulating capitals, we pointed out that it is important for workers to organise *all* of the regulating capitals within each industry.⁵⁵ We also noted that organising the subdominant capitals would enable workers to raise the potential limits to rising wage rates even higher. We must now consider what types of overall industry structures will best tend to facilitate these ongoing organising projects across each industry.

Until the late 1960s, it is well known that many highly concentrated manufacturing industries were also fairly well organised and highly paid. The continuing debate is over the question, why? According to most radical and institutional arguments, one of the most important explanatory factors concerned the high degrees of market concentration which generated monopoly pricing power and hence, a greater ability to pay higher wage-rates. In our discussion of industry structure, however, we will continue to maintain that 'market power' has had relatively little to do with these higher wage rates. Within Marx's analysis of capitalist competition, we have already seen that market concentration and monopoly pricing power have little to do with a regulating capital's ability to incorporate higher wage rates within its cost structure. Thus, up to this point, we have argued that wage increases can potentially take place within any industry – concentrated or unconcentrated.

In order to develop our alternative to monopoly theories further, we will now draw upon the work of Harold Levinson and several more recent writers who have also raised serious questions about the significance of market concentration in the development of inter-industry wage differentials.⁵⁶ In the mid-1960s, Levinson developed an insightful alternative to the market concentration doctrine by pointing out that strongly correlated with high market concentration are two other structural factors that may be far more important in enhancing the ability of workers to organise and raise their wage rates. These two factors

55 Clearly, if only some of the regulating capitals are facing demands for higher wage rates, they will no longer be regulating capitals as soon as the wage increase goes into effect. Thus, the achievement of sustainable wage increases will be considerably more difficult.

56 See Levinson 1966, 1967; Friedman 1984; and Hodson 1986.

are: (1) the small number of key firms, and (2) the presence of relatively difficult conditions of entry and exit.

Within manufacturing, if an industry is primarily composed of a few large firms, the project of organising all of the regulating capitals is obviously facilitated. Furthermore, if conditions of entry and exit are such that regulating capitals require both large amounts of fixed capital investment and significant periods of time in order to either relocate or bring their new plants on line, then maintaining a sufficient level of organisation within the industry will also be greatly facilitated. All of this is clearly consistent with what we have already argued in terms of the importance of high levels of fixed capital investment.

On the other hand, in sectors outside of manufacturing (e.g. construction, mining, and transportation), Levinson argues that other 'spatial limitations' may similarly enhance workers' abilities to maintain an effective level of union organisation. Here, as in manufacturing, 'the key to the relationship between product market structure and wage movements lies primarily in the effects of the former on the ease of entry of new firms into production outside the jurisdictional control of the union'.⁵⁷ Outside of manufacturing, however, this protection against nonunion entrants may be provided not by small numbers of firms and difficult conditions of entry, but by the 'spatial limitations of the physical area within which new entrants effectively compete'.⁵⁸ Thus, for example, although both maritime and trucking are highly competitive industries with large numbers of firms, Levinson suggested:

[T]he technological and physical character of production require that any new entrant into the product market must either locate his plant within a specific and relatively limited geographic area or must physically enter such a specific area during some important phase of the production process.⁵⁹

After comparing manufacturing with these other strongly unionised sectors that have repeatedly presented serious anomalies to each generation of institutionalists (see chap. 2), he concludes that market concentration should no longer be considered a key positive factor in the determination of inter-industry wage rates.

⁵⁷ Levinson 1966, p. 265.

⁵⁸ Levinson 1966, p. 266.

⁵⁹ Ibid.

[T]he primary reason for the strong relationship found in past studies between union strength and concentration (as well as rates of increase in wages) may well have been due to their reliance on manufacturing data; once the scope of the analysis is broadened to include nonmanufacturing operations, *concentration is no longer the primary link between union strength and wage-fringe increases*.⁶⁰

Indeed, in a later article he went on to suggest that a high degree of concentration in the product market can even have a *negative* effect on wage rates:

On the one hand, it can provide the union with greater protection against the entry of non-union competitors, and thus help to maintain the union's jurisdictional strength in the industry. Yet at the same time, it is also associated with fewer firms of larger size and greater financial reserves which are more able effectively to resist union pressures.⁶¹

Since Levinson first suggested that market concentration (and hence market power) may not be a significant factor explaining above-average wage rates, a number of empirical studies on inter-industry wage differentials have shown that the statistical significance of market concentration is either seriously weakened or entirely negated once other structural factors such as plant size and capital intensity are included.⁶² In one of the earliest studies of 417 four-digit manufacturing industries, Stanley Masters concluded that 'although the concentration ratio has received much more attention, the plant-size variable (measured by the percentage of establishments of at least 1,000 workers) is more important in explaining inter-industry differences in average wages'.⁶³

60 Levinson 1966, p. 268, emphasis added.

61 Levinson 1966, p. 205. For similar points see Friedman and Friedman 1979; Friedman 1984; and Hodson 1986.

62 These studies include the following: Masters 1969; Haworth and Rasmussen 1971; Pugel 1980; Lawrence and Lawrence 1985; Hodson 1986; Hodson and England 1986; Freeman and Medoff 1981; and Dickens and Katz 1987. Contrasting studies that still find that market concentration is positive and significant despite the use of similar structural variables include Kwoka 1983; Long and Link 1983; and Mellow 1982. A useful summary of all of these studies can be found in Dickens and Katz 1987. Unfortunately, most of these studies are limited to the manufacturing sector. Hence they do not ultimately test one of Levinson's key arguments which suggests that the statistical significance of market concentration is greatly weakened once empirical studies include other sectors such as trucking and construction.

63 Masters 1969, p. 344.

Although plant size was highly significant at the 99 percent level, the concentration ratio was not even significant at the 90 percent level. Furthermore, Masters's proxy for the capital/labour ratio was also highly significant.⁶⁴

In a more sophisticated and far more extensive study, William Dickens and Lawrence Katz recently arrived at very similar conclusions.⁶⁵ While these authors caution the reader concerning extensive problems of multicollinearity among numerous industry characteristics, they nevertheless find that three key factors have a consistently positive and significant effect on inter-industry wage rates in the majority of their specifications. In addition to average years of schooling, and various measurements for firm profitability, they also find that workers tend to earn 'wage premiums' in industries with both larger than average establishment size and high capital-to-labour ratios.⁶⁶ On the other hand, 'the concentration ratio had an inconsistent relation to the wage with both positive and negative coefficient values following no easily discernible pattern.'⁶⁷

Finally, Levinson, Friedman, and Hodson have all correctly pointed out that the experience of the American trade union movement during the 1920s and early 1930s should caution economists from simply assuming that high market concentration and large financial resources directly imply relatively high wage rates.⁶⁸ Until 1935, Levinson points out:

Attempts to establish unionism were least effective in oligopolistic industries and most effective (relatively speaking) in competitive sectors, primarily because the very large financial resources of the firms in the former group were available to oppose the union drives more aggressively. If this was true of attempts to unionize, it would seem applicable as well to attempts to raise wages.⁶⁹

64 Other studies indicating that capital intensity is a highly significant and positive factor include Haworth and Rasmussen 1971; Lawrence and Lawrence 1985; Hodson 1986; Hodson and England 1986; Dickens and Katz 1987; and Howell 1989.

65 Dickens and Katz 1987.

66 Dickens and Katz 1987, p. 84.

67 Dickens and Katz 1987, p. 78. Despite their findings concerning market concentration, Dickens and Katz continue to suggest that market power remains an important factor in the inter-industry wage structure. In fact, they go on to employ a principal component analysis that appears to support previous institutional arguments based on the traditional notion of the dual economy.

68 Levinson 1966; Friedman 1984; and Hodson 1986.

69 Levinson 1966, p. 274.

When we now add Levinson's insights concerning industrial structure to our own discussion of the competitive 'ability to pay' that has been developed, it becomes increasingly clear that market concentration and market power become less and less relevant to the discussion of inter-industry wage differentials.

Before developing a brief illustration of how the costs of obstruction will tend to limit rising wage rates, a few additional comments concerning the question of overall firm resources are in order. As noted previously, the assessment of short-run cost factors may not always be the most important criteria in developing a firm's bargaining strategy. In certain situations (i.e. when the labour movement is particularly weak), firms may attempt to destroy the union altogether by engaging in prolonged battles of attrition. Thus, immediate cost considerations are replaced by longer term possibilities of smashing the union, or at least decisively weakening it.⁷⁰

As Levinson suggested, in these types of situations a firm's overall resources may become a determining factor in allowing it to choose such an expensive and often risky option. Thus, within our discussion of factors determining the bargaining strategies of regulating capitals, we would also want to consider such factors as the firm's total mass of available profits, the extent of conglomeration, and the particular timing of the labour dispute within an industry's cycle of fat and lean years.

70 Within the US, the 1920s and the past three decades are both good examples of this type of period when union-busting becomes the order of the day. After the end of WWII and up until the early 1970s, many unionised workers within heavy industry were able to achieve a significant wage differential relative to nonunion workers (Howell 1982). Yet, in the 1980s, these past victories eventually came under fire for several reasons. Not only had the accumulated differential in wage rates created a strong incentive for capitalists to opt for the longer run strategy of busting these unions, but by the 1980s, many of the enormous fixed capital investments that greatly increased the costs of obstruction in the immediate postwar decades had significantly depreciated. Furthermore, significant reductions in transportation and communication costs made it quite profitable for US firms to tap into the vast low-wage reserves of the less developed capitalist regions. Thus, extensive capital mobility became an increasingly attractive option even for the 'eternally stable core'. Finally, the 1970s profitability crisis (which was being intensified in the United States by the fact that many regulating capitals no longer resided within its borders) made it increasingly necessary for capital to mount an all-out attack on wages and working conditions within the United States. Unfortunately, at a time when the labour movement needed to be at its strongest in order to protect itself from capital's onslaught, labour was at its weakest level of organisation since the 1920s.

We have already established that regulating capitals that require high levels of fixed capital investment must also be able to obtain a relatively large mass of profit in order to achieve the general rate of profit. Thus, these capitals will tend to have a relatively large pool of financial resources to fall back on in the case of prolonged battles with their unions. They will also tend to have easier access to credit. Perhaps most important, if a firm is also part of a large multiproduct conglomerate, it can rely on substantial resources from outside of the particular sector involved in the labour dispute. In fact, a number of writers have argued that the increasing conglomeration of US corporations in the 1960s and 1970s played a major role in tipping the balance of power against labour in industries such as coal, meat-packing, printing, and steel.⁷¹

Finally, there is also the question of the timing of a particular labour dispute. Up to this point we have been assuming that all of our hypothetical industries are enjoying periods of healthy growth rates. Yet, in the real world, most industries will tend to go through necessary periods of adjustment where growth rates slow down or even decline. Thus, unions must be careful to select the appropriate periods to go out on strike. If an industry is temporarily going through a phase of weakening demand and rising excess capacity, capital may be able to turn a strike situation to its own advantage. Indeed, a prolonged lock-out may allow capital to minimise its overhead costs and seriously weaken the union at the same time. Thus, from the union's perspective, a prolonged strike during a period of slack demand could have very negative consequences.⁷² On

71 See Bluestone and Harrison 1982; Craypo 1981; Davis 1986; and Moody 1988. For a revealing case study of how Litton Industries used its conglomerated resources to severely undermine unions, see Craypo 1986.

72 Related to the above issue of varying rates of growth is obviously the question of varying profit rates. Within this chapter, in addition to assuming that all industries are enjoying a period of healthy growth, we have also assumed that they will generally tend to receive the average rate of profit for the economy as a whole. We purposely developed our argument in this manner to show that even when we assume a fairly rapid equalisation of profit rates across different industries, there is still substantial potential for the development of differential wage rates between and within those same industries. In the next chapter we will relax this assumption by considering the more realistic process of equalisation which entails not only the long-run convergence of inter-industry profit rates, but also the continual *divergence* of profit rates as well. As we have already explained in chapter 5, various industries go through different types of cycles of fat and lean years, and some may actually be in the process of dying for a number of years. Thus, for substantial periods of time, profit rates will also be quite different. In chapter 7 we will complete our discussion of 'the ability to pay' by showing how these differential profit rates may or may not have a significant impact on wage rates. As we shall soon see, the answer to this question will generally depend on *why* the rate of profit has deviated from the average rate and for how long.

the other hand, 'working to rule' and other in-plant methods of imposing costs on capital may be quite effective.

Completing Our Numerical Example

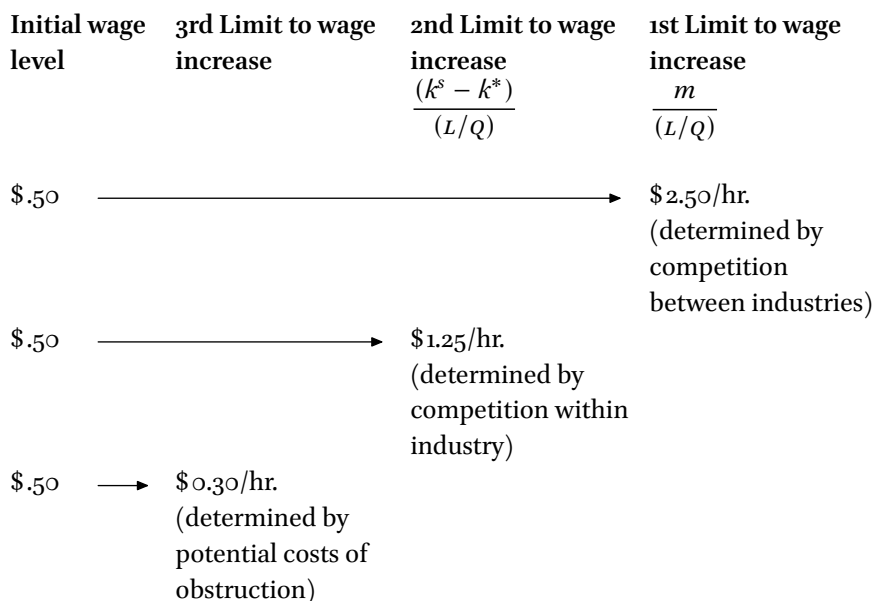
Assuming that the firm is not intent on busting the union at all costs, the costs of obstruction, however crude the calculation, remain a good first approximation of the union's ability to raise wage rates within regulating capitals. In order to illustrate how the costs of obstruction can become an important limiting factor in worker struggles to raise their wage rates, we will now briefly return to the numerical example within our hypothetical Industry A.

We left our example with two competitive constraints on rising wage rates. The first constraint was determined by the profit margin per unit labour requirement of regulating capitals, and the second was determined by the unit costs of subdominant capitals. We will now assume that at a given level of organisation and militancy, workers in these same regulating capitals have the potential to impose costs of obstruction which are the rough equivalent of a 30 cents per hour wage increase for the coming year. Thus, as indicated in figure 6.2 below, workers in Industry A now confront *three* important constraints on rising wage rates.

Given these costs of obstruction, we can see that workers within our regulating capitals may face significant negative consequences if they should attempt to raise wage rates far beyond this 30-cent limit. Indeed, as their wage demands increasingly exceed this limit, employers will find it increasingly cost-effective to aggressively obstruct the wage increase. And, if these firms should succeed in forcing workers back to work on company terms, the costs to workers and their union will become painfully obvious.

On the other hand, if regulating capitals should agree to allow wages to rise well above this limit, newly entering capitals may find it profitable to hold the line and resist worker efforts to raise wages to this level. Although the unit costs of these new capitals may initially rise as a result of the ensuing industrial conflict, a successful campaign to restrain wage rates may eventually allow these new capitals to seize the low cost position within the industry. In the end, a wage increase far beyond this new limit would once again cause our regulating capitals to lose their position as the regulating conditions of production within the industry. Thus, either way, wage demands that significantly exceed the potential costs of obstruction may be difficult to sustain.

While institutional labour economists have certainly tried to account for many of the above structural determinations of inter-industry wage differentials, their continued dependence on the framework of perfect and imperfect competition has made it difficult for them to understand how these different

FIGURE 6.2 *Three Competitive Limits to Hourly Wage Increases*

technical factors might be incorporated within an analysis of vigorous capitalist competition. Because the theory of perfect competition argues that high levels of competition require all firms to be infinitesimally small and perfectly mobile, technical factors like high levels of fixed capital investment tend to be viewed as 'barriers' to competition (rather than merely as *conditions* of competition that must be adjusted for). The presence of these 'barriers', in turn, suggests the presence of monopoly power and administered pricing. And finally, the oft-cited positive correlations of above-average wage rates – with high levels of fixed capital investment; high capital/output ratios; high capital/labour ratios; high profit margins (or, high 'value productivity'); and high degrees of market concentration – are repeatedly interpreted as evidence of markup pricing policies within oligopolistic industries.

Thus, as noted in chapter 2, these well-known empirical patterns of inter-industry wage differentials have largely tended to be explained at the expense of a competitive analysis of wages, prices, and profits.⁷³ Indeed, even researchers like Dickens and Katz, who argue that market concentration is not a good

73 Howell 1982; Dunlop 1948; Garbarino 1950; Bowen 1960; and Craypo 1981. For example, in a very interesting analysis of the structural determinations of inter-industry wage differentials, Howell argues that 'the existence of significant barriers to entry is the primary source of the price discretion that core industries exhibit' (Howell 1982, p. 51). He also argues that

statistical indicator for above-average wage rates, continue to rely on 'market power' arguments as the only conceivable way to reconcile these persistent and substantial differentials in profit and wage rates.⁷⁴

From our extension of Marx's analysis of competition, however, we have already begun to see that many of these patterns can be anticipated within the confines of ongoing capitalist competition. Although we have been careful to derive all of the above limits to rising wage rates within the context of ongoing capitalist competition and the equalisation of profit rates, a series of persistent patterns of inter- and intra-industry wage differentials have emerged from several different levels of analysis.

Our earlier analysis of competition between industries showed that the immediate constraints on rising wage rates will tend to vary across different industries due to variations in technical structures of production. Regulating capitals that require high levels of fixed capital investment and high capital/labour ratios *will* be able to absorb large immediate wage increases relative to capitals in more labour-intensive industries. However, this is not because of monopoly pricing power, but because *competition* actually requires these capitals to earn relatively high profit margins per unit labour requirement. In turn, these larger profit margins enable them to survive higher wage increases during the transitional period when relative prices have not yet fully adjusted. Furthermore, our analysis of regulating capitals also suggests that relative prices *will* eventually adjust not as a result of monopoly power, but as a result of the regulating capital's ability to act as the *competitive standard* for the industry as a whole. (An ability which regulating capitals within any industry will tend to possess regardless of the level of market concentration).

Our analysis of competition within industries has shown that regulating capitals in capital-intensive industries can also endure the presence of larger wage differentials within their industry because wage costs tend to be a smal-

'high barriers to entry and administered pricing are important sources of high ability to pay' (Howell 1982, p. 54). Thus, although Howell's work makes a number of significant advances in the discussion of technical determinations of wage differentials, his continued dependence on the arguments of monopoly power and administered pricing prevents him from resolving the old institutionalist problem of indeterminacy. In addition, his assumption of administered pricing as an exclusive characteristic of 'core' industries leads him to seriously downplay the possibilities for workers within the so-called 'competitive' sectors to achieve significant wage increases through union organisation (see also Howell 1989). As we noted in chapter 2, efficiency wage theories that rely on various forms of 'rent sharing' suffer from similar problems.

ler proportion of total unit costs. And finally, our discussion of the costs of obstruction has shown that capitals with large workforces, large amounts of fixed capital, and high capital intensity will frequently find it less cost-effective to obstruct these wage increases when facing militant workers who have the credible potential to impose significant costs.

Analysing the Effects of Uneven Worker Organisation

There are many trades in the East End of London whose labour is not more skilled and quite as hard as that of bricklayers and bricklayers' labourers, yet they hardly earn half the wages of these. Why? Simply because a powerful organisation enables the one set to maintain a comparatively high standard of life as the rule by which their wages are measured; while the other set, disorganised and powerless, have to submit not only to unavoidable but also to arbitrary encroachments of their employers: their standard of life is gradually reduced, they learn how to live on less and less wages, and their wages naturally fall to that level which they themselves have learnt to accept as sufficient.

– FRIEDRICH ENGELS, 'The Wages System'

From our previous argument, we have seen that differential conditions of production between and within industries have important consequences for the development of inter- and intra-industry wage differentials. Thus, even if we were to assume that workers within the regulating capitals of every industry were equally organised and equally militant, certain patterns of inter-industry wage differentials may nevertheless tend to appear. In this case, however, it is important to point out that the range of differentiation would tend to be at a minimum.

As the above quote from Engels suggests, when we consider the far more likely scenario of uneven worker organisation across different sectors of the economy, the range of actual wage variation is also likely to increase significantly. Once we allow for differential levels of worker organisation, we therefore arrive at our most concrete and final set of factors, which will tend to have an important influence on the actual patterning of inter- and intra-industry wage rates.

Clearly, if only some of the industries in any particular capitalist economy are highly organised, the above potential limits to rising wage rates will only be tested in these industries. Thus, within economies where unionisation rates are highly uneven, we would expect to see far greater differences in inter-

industry wage rates relative to economies where workers are more widely organised.⁷⁵ In addition, if the highly organised sectors are also those industries with the greatest immediate potential for higher wage rates (i.e. those with high fixed capital requirements and above-average capital/labour ratios), then inter-industry wage differentials will tend to be pushed to the maximum range of variation allowed within the confines of ongoing capitalist competition.

Unfortunately, this last scenario, which lays the groundwork for the greatest range of wage variation, is a fairly good approximation of the conditions within US manufacturing between 1940 and 1970. During this period the most militantly organised industries were the highly capital-intensive (and highly concentrated) CIO industries such as steel, auto, rubber tyre, and meat-packing. It is also during this period that one could most successfully argue that many of the regulating (and hence most profitable) capitals in these industries still tended to be located within the United States.⁷⁶ Moreover, their massive fixed capital investments greatly diminished the potential for capital mobility for several decades. Thus, for all of these reasons, the greatest potential for union wage increases also tended to exist within those industries that were the most effectively organised.

In sharp contrast to these CIO industries, many of the so-called 'secondary sectors' with relatively low fixed capital requirements and low capital/labour ratios also tended to remain either weakly organised or entirely unorganised.⁷⁷

75 Here the neoclassical argument whereby unions are accused of *increasing* the inequality of wage rates between organised and unorganised workers is trivially true. Yet, within our argument, workers in the unorganised sectors are not experiencing depressed wage rates because of an excess supply of labour that has been generated by a reduction of employment within the organised sectors. On the contrary, they are experiencing relatively lower wage rates because they have failed to push their wage rates up against the limits that have been outlined above. Hence, the real remedy to these growing inter-industry wage differentials is not to dismantle the unions, but to organise the unorganised! It is also important to note that Freeman and Medoff (1984) have shown that unions actually tend to reduce overall wage inequality by decreasing differentials within unionized firms and across firms within the same industry.

76 For a brief summary of the changing dynamics of international competition and its effects on US labour, see Price 1986. Although Price does not utilise the concept of 'regulating capitals', the implications of the changing national location of low-cost producers is an important component of his analysis.

77 As I argued in chapter 4, this dualism in union development was greatly reinforced by the 'red scare' of the 1950s when many of the most active and most militant union organisers were driven out of the labour movement in huge numbers. Thus, when it was time for the CIO unions to take on these other manufacturing industries that were clearly more

Given these technical conditions, industries such as textiles, apparel, and footwear were among the earliest US sectors to be seriously afflicted by capital flight, first to the unorganised US South and then abroad. In addition, many of the *regulating* capitals within these international industries were increasingly located outside of the United States.⁷⁸ Thus, within our argument, the cumulative interaction of differential conditions of production and profitability combined with highly uneven levels of worker organisation would clearly play a major explanatory role in the development of substantial inter-industry wage differentials throughout the postwar period.

Of course, once declining profit rates caused the US economy to move into a secular period of general crisis in the 1970s and early 1980s, these inter-industry wage differentials were greatly exacerbated as unorganised workers in the 'secondary sector' became increasingly vulnerable to labour market pressures generated by rising levels of unemployment.⁷⁹ When comparing the United States to other industrialised capitalist nations, it is also critical to note that wage inequality between organised and unorganised workers is seriously aggravated in the United States by our relatively low minimum wage rate and

difficult to organise, the labour movement had lost much of its momentum as well as many of its most experienced organisers, who were required to accomplish this task. Outside of manufacturing, the failure to organise the expanding service sector also greatly contributed to growing wage inequality within the United States. Commenting on the lack of organising activity within this sector, Charles McDonald, Director of the AFL-CIO Department of Organising, noted the following: 'Up until 1974 (before the Health Care Amendments to the NLRA), only 8% of our elections took place in the service-sector. Since 1974, service-sector elections have increased to approximately 22%, but this is still well below where it should be, given the movement of jobs toward this sector of the economy' (see Kochan 1986, p. 66). Although it is often assumed that service sector work is inherently 'low wage work', comparisons across different capitalist nations are quite revealing. According to Thurow (1989), although 'private service workers in the US are paid only 67 percent as much as those in manufacturing, in Japan they are paid 93 percent as much and in Germany 85 percent as much as manufacturing workers'.

78 The implications of the national location of regulating capitals will be discussed in more detail in the following chapter.

79 While most radical economists contend that the US economy reached a critical turning point in the late 1960s, the causes for the emergence of the prolonged profitability crisis are hotly debated. Many of these arguments can be found in *The Imperiled Economy: Book I*, URPE, 1987. From this writer's perspective, one of the most powerful explanations for this crisis is primarily based on Marx's classical argument concerning capitalism's internal dynamics of technical change (see Shaikh's contribution to the URPE volume). For documentation of the long-run decline in profitability within the US, see Nordhaus 1974. For similar trends in most European nations, see Hill 1979. See also Shaikh 2016.

extremely weak levels of government protection for nonunion workers. Unlike their European counterparts, unorganised workers in the United States have very little legal protection from arbitrary and/or unjust dismissal. Furthermore, when US workers do lose their jobs, they have no national healthcare programme to fall back on. When this low level of protection from the hardships of unemployment is then combined with one of the lowest levels of unionisation in the industrialised world, it is reasonable to conclude that the 'union threat effect' within most unorganised sectors of the US economy will also tend to be far weaker. Thus, while most unionised workers were able to hold the line on wages at least until the 1980s, unorganised workers have been repeatedly ravaged by the downward pressures of our exceptionally 'free' labour market.⁸⁰

The importance of both high levels of unionisation and strong government intervention can perhaps best be seen when we compare the United States to countries like Sweden which are at the opposite end of the capitalist spectrum. As a result of exceptionally high levels of unionisation (rising from 70 percent in 1955 to 95 percent in 1984), as well as a comprehensive 'solidaristic wage policy' that was effectively pursued by Sweden's Social Democratic Party, wage inequality was significantly and continually reduced from the 1940s through the late 1970s.⁸¹ Unfortunately, however, this impressive progress was brought to an abrupt halt in the late 1970s when solidaristic wage bargaining came under employer attack. Nevertheless, Sweden continues to have one of the lowest levels of wage dispersion in the industrialised world.⁸²

80 For useful discussions of how the Reagan administration attempted to greatly increase these downward pressures on wage rates throughout the 1980s, see Rosenberg 1983 and Amott 1988.

81 For a brief discussion of Swedish labour market policies in the postwar period, see Esping-Anderson and Friedland 1982. See also Harrison and Bluestone 1990.

82 A comparative study of wage dispersion within manufacturing industries of 14 countries can be found in Krueger and Summers 1987. Although these authors find that the rankings of different industries are 'remarkably stable', they also note that 'there is a moderate degree of variation in the magnitude of industry wage differentials among countries' (Krueger and Summers 1987, p. 28). More important, because these wage structures are similar across countries with very different levels of unionisation, Krueger and Summers also suggest that union density is 'probably not an underlying determinant of the industry wage structure' (Krueger and Summers 1987, p. 36). Given that our argument suggests that structural differences in technical conditions across industries do create an important foundation for inter-industry wage differentials, the appearance of similar wage hierarchies across different capitalist nations is not surprising. However, we are suggesting that higher levels of unionisation should tend to reduce the overall range of wage dispersion. Curiously, if one correlates unionisation levels with Krueger and Summers's own measure

As we begin to arrive at our most concrete levels of analysis, the determinations of differential wage patterns across any particular economy obviously become far more complex. Although our analysis continues to remain within the limits of capitalist competition between and within industries, political factors may also become quite significant. In fact, as we have just argued, the level of effective organisation within the working class as a whole becomes an absolutely central factor when comparing the extent of wage differentiation across different capitalist countries (or across different historical periods within the same country).

Yet, although political factors may become more significant at the most concrete levels of analysis, it is important to recognise that the politics of class struggle have been interwoven into every level of our discussion thus far. In our discussion of the laws of accumulation in chapters 3 and 4, we continually argued that class struggle and different levels of class organisation are critical to the determination of both the general wage level and various patterns of wage differentiation. Within any particular capitalist country, history, politics, and class struggle are all critically interwoven into the very fabric of Marx's discussion of the determinants of the value of labour power, the length and intensity of the work day, and even the average number of family members which are required to work.

Within our present discussion of capitalist competition and differential wage rates, we see once again that politics is an essential component of our analysis. Clearly, the struggle of labour against capital which is expressed in competition as limits in the first instance, and then as the struggle against these limits in the second instance, is entirely political. Thus, at all of these different levels of analysis, politics remains fundamental to our discussion.

of wage dispersion for the eight highly industrialised capitalist nations in their study, the rank correlation coefficient turns out to be -73. Thus, although more sophisticated studies obviously need to be done, the unionisation level does appear to have a narrowing influence on the range of wage differentiation. I also expect that this narrowing influence would be far more significant if our measure of wage dispersion was not limited to manufacturing. Unionisation rates for Sweden, Britain, Germany, Canada, Japan, France, and the United States were obtained from Goldfield 1987, table 3, p. 16. The unionisation rate for Norway was obtained from R. Price, 'Trade Union Membership', in R. Bean (ed.) 1987, *International Labour Statistics*, New York: Routledge. Since this volume was originally published, far more international studies have now been conducted. In 2002, a World Bank Report reviewed over 1,000 studies on the effects of collective bargaining across different countries, and the authors concluded that countries with higher union density clearly tended to have lower wage dispersion and greater wage equality. See Aidt and Tzannatos 2002. See also Card, Lemieux and Riddell 2008.

On the other hand, politics is not the only factor. The forces of competition and accumulation also continually make their presence felt. Thus, although the level of worker organisation is a key variable in the determination of the general wage level within any particular country, the level of productivity and the efficiency of that nation's capitals remain fundamental limiting factors.⁸³ And, as we moved on to our discussion of wage differentials and capitalist competition, we discovered an additional complex of dynamic constraints.

Once the limits of competition and accumulation are clearly understood, however, it is essential to point out that political variables are not thereby diminished in their social importance. On the contrary, they merely become richer in their determinations. Indeed, comparing our own analysis of these political determinations with the arguments of segmentationists and other 'class struggle' theorists, political factors may often take on *even greater significance* once they are properly understood.

Within most labour market segmentation discussions of inter-industry wage differentials, for example, low-wage rates, are primarily assumed to be the result of the lack of monopoly power, not the lack of union organisation. Thus, as noted in chapter 2, the periodic occurrence of high wage rates and strong unions within unconcentrated industries has generally presented a serious anomaly for segmentationists.

Once the limits to capital are re-established through Marx's analysis of ongoing capitalist competition, however, it is much more difficult to suggest that differential wage patterns are primarily determined by the discretionary pricing policies and divide and conquer strategies of monopoly capitalists. Equally important, given that rising wage rates are no longer dependent on monopoly power, our very different path to the concrete analysis of workers' power suggests that workers and their unions can potentially do a great deal more to improve wages and working conditions within many 'secondary' sectors of the US economy. In fact, the arguments in this book suggest that it is the *lack of unionisation* and not the presence of high levels of capitalist competition that is the primary cause of chronically low wage rates within many of these sectors.

Thus, although our argument is clearly far more determinate, there is curiously more room for workers and their unions to have a significant effect on wages and working conditions within many more industries across the eco-

83 As Samir Amin has repeatedly pointed out, the standard of living of a nation's working class is never independent of the overall development of that nation's forces of production (Amin 1974).

nomy. As Engels once pointed out in *The Labour Standard* of London: 'The law of wages ... is not one which draws a hard and fast line. It is not inexorable with certain limits. There is at every time (great depression excepted) for every trade a certain latitude within which the rate of wages may be modified by the results of the struggle between the two contending parties'.⁸⁴

As noted in the introduction to this work, the real dynamics of worker power may be quite different from what many 'class struggle' theorists have tended to assume. Indeed, once we have re-established that the laws of competition provide critical constraints on *capital* as well as on labour, the terrain of the class struggle over wage rates changes dramatically.

A Final Note on Workers' Power and the Costs of Obstruction

In order to further differentiate our argument from radical class struggle arguments, it is necessary to make one final point concerning our analysis of the 'costs of obstruction'. From the previous discussion, it may appear to be the case that all workers essentially have to do to raise the limits to rising wage rates is simply become better organised and more militant. Quite clearly, the stronger unions become, the higher the potential costs of obstruction may be raised. Thus, if we mistakenly limit ourselves to this very concrete level of analysis, the class struggle does indeed appear to be the overriding factor.

In the analysis developed here, however, the costs of obstruction are only *one* of the constraints to rising wage rates. There are also the very important limits determined by both the cost structures of subdominant capitals and by the profit margins of regulating capitals. Within this overall framework of competitive constraints, if workers in a particular industry should become so powerful that they can potentially generate costs of obstruction that are far beyond these other two competitive limits, these latter constraints will essentially displace the costs of obstruction as the primary limit on wage rates. Thus, if these workers should actually manage to force their regulating capitals to concede to a wage increase that is commensurable to these greatly increased costs of obstruction, they may soon discover that they will be forced to pay a very stiff penalty in rising layoffs and possible plant closures.

As we have shown, a local wage increase that forces unit costs above the unit costs of the subdominant capitals will cause the original regulating capitals to lose their position as the regulating conditions of production within the

84 Engels 1881, p. 13.

industry. An even greater wage increase that eliminates the profit margins of the regulating capitals may force these firms to close their doors. Thus, regardless of the militancy of the union, wage increases that go beyond these other two limits will be difficult to sustain. At this level of analysis, the limit to the class struggle is therefore quite clearly the competition of capitals.

Before we go on to a discussion of the limits to rising wage rates for *non-regulating* capitals, we must still discuss one final set of limiting forces that many radicals have also tended to lose track of. These limits are determined by the general laws of capitalist accumulation.

The General Laws of Capitalist Accumulation

Within chapters 3 and 4 we developed a fairly detailed analysis of how movements in the general wage level will tend to be limited and regulated by the dynamics of capitalist accumulation within the aggregate labour market. At this point, it will be useful to briefly link our discussion of competitive wage determination back up to this more general analysis. As noted earlier, it is primarily at the aggregate level that general movements in the productivity of labour will tend to play an important role in the wage determination process. In order to develop these links we will first discuss the case of local wage increases within one particular industry. We will then go on to discuss wage increases that take place over wider sectors of the economy.

Local Wage Increases within a Single Industry

Up to this point, we have argued that effectively organised workers *within any single industry* should be able to achieve a continuous series of gradual increments in their wage rates during periods of normal market growth. This is provided, of course, that workers' wage demands do not seriously exceed the three sets of constraints that have been outlined above, and that workers allow sufficient time for relative prices to adjust. Equally important, we have also argued that these wage increases do not require commensurate increases in the productivity of labour, nor will they tend to result in declining levels of employment.

Thus, in direct contrast to neoclassical theory, local wage increases may be largely independent of movements in the productivity of labour within the affected industry. Moreover, as long as we are dealing with rising wage rates in only one isolated industry, there is little reason to suggest that aggregate movements in labour productivity will have any significant limiting effect on that industry's wage rates. Even if wage rates in this industry should rise well

above the general wage level, outpacing both local and aggregate productivity growth, this would merely imply that a portion of the surplus value that is being realised in other industries would eventually have to be transferred into this industry. Once relative prices have adjusted to allow for the equalisation of profit rates between industries, these higher wage rates would merely imply a very slight decrease in the general rate of profit. *In sum*, within the above Marxian analysis of competitive wage determination, the *neoclassical* linkages between labour productivity, wage rates, and employment rates have been irreparably severed.

Yet, although local wage increases are not generally constrained by movements in productivity per se, it is important to point out that the actual *process* of raising the productivity of labour *will* tend to have important limiting effects on local wage determination that should not be ignored here. Contrary to neoclassical theory, Marx's analysis of capitalist production argues that the actual process of increasing labour productivity normally has a number of very detrimental effects on both the wages and working conditions of the affected workforce.

As noted in chapter 3, the primary way to increase labour productivity is through mechanisation. Yet, under capitalism this process of mechanisation creates a number of serious problems for the worker. Within the industry where mechanisation is taking place, skill levels tend to be lowered. Thus, the value of labour power (which forms the centre of gravity for the market wage) also tends to be reduced. Along with this deskilling process, the majority of workers will gradually come to command less overall knowledge of the production process and will therefore have less ability to control it. Finally, because deskilling also tends to cut down on required training time, an increasing number of workers will become more and more vulnerable to competition from the reserve army. (Of course, at the aggregate level, this reserve army is continually reproduced in various forms by the same process of mechanisation and rising capital intensity that takes place throughout the entire capitalist economy).

Within the context of our discussion of the 'costs of obstruction', it should not be difficult to see that the continual mechanisation of production and its accompanying generation of a sizable reserve army act as important constraints on workers' abilities to raise these costs of obstruction. In fact, rather than improving the lot of the working class, Marx's argument suggests that capitalist mechanisms for raising productivity will generally tend to make the worker's situation more and more precarious.⁸⁵

85 It was for all of the above reasons that Marx argued that workers must constantly organise

It is also worth recalling that this combined process of deskilling and continual underemployment acts as a powerful vice that keeps wage differentials between organised and unorganised workers in check over time. As the wages of organised workers continue to rise above the wage rates of unorganised workers who are less sheltered from the reserve army, the incentive for employers to opt for the more costly strategy of obstructing further wage increases and tapping into that reserve army is increasingly enhanced. Over time, this incentive will tend to be further increased as costly fixed capital structures are eventually depreciated and the costs of capital mobility are thereby greatly reduced. Thus, as argued in chapter 4, not only does the reserve army help to generate wage differentials by providing capitals with a constant stream of desperate workers who are forced to work at substandard wage rates, but it also acts as a powerful constraint on the overall range of wage variation.

Wage Increases Across the Economy

Once we move to a more general discussion of the limits to rising wage rates within a large number of industries, movements in both the productivity of labour and in the general rate of profit become far more critical. In this context, increases in the general wage level that outstrip increases in the productivity of labour *will* have significant consequences for both the general rate of profit and aggregate levels of employment. Thus, it is here that we must finally address the limits to rising wage rates that are derived from aggregate movements in the productivity of labour, or, in other words, from Marx's general laws of capitalist accumulation.

In our previous discussion of these general laws in chapter 3, we argued that *during healthy periods of accumulation*, the continual mechanisation of the production process provides capital with several important levers to assure that wage increases will tend to remain within the limits of capitalist profitability. In addition to the depressing effects that we have just enumerated (i.e. deskilling and chronic underemployment), the mechanisation of production also causes the productivity of labour to rise. To the extent that these productivity increases take place within industries that are either directly or indirectly connected to the production of workers' means of subsistence, this provides a limited space for real wages to rise without seriously impinging on capitalist profitability. Indeed, as long as real wages rise more slowly than productivity, both real wages

and struggle against this continual onslaught just to keep from losing ground. See Marx 1970 (see also chapter 3 above).

and the rate of surplus value can continue to rise – if workers organise effective unions that have the ability to impose costs on capital.

Given that the reserve army continues to be replenished even during periods of rapid accumulation, it will be unlikely for wage rates to rise above the limits set by the productivity of labour. However, in extraordinary cases where general wage increases do begin to impinge on capitalist profitability, this will primarily tend to have a decelerating effect on the rate of accumulation. Thus, the rate of growth of aggregate employment across the economy as a whole will tend to decelerate until the growing reserve army places a check on these rising wage rates. Of course, within any particular industry, these declines in the general rate of profit will tend to make their presence felt by placing a downward pressure on individual firm profit margins and profit rates.

During periods of general crisis such as the 1970s and early 1980s, however, the dynamics of wage determination and productivity growth take on a very different character. When the capitalist economy enters into periods where the rate of profit has declined to seriously low levels as a result of secular increases in the organic composition of capital, the space for rising wage rates becomes much more narrow. As the profitability crisis continues to express itself, the rate of growth of investment will eventually tend to decline and improvements in the productivity of labour will become far more difficult. Moreover, declining rates of growth will cause the reserve army to grow more rapidly.

As profit rates continue to decline, capitalist competition will also become more and more intensified. Thus, individual capitals are increasingly pressured to protect their declining rates of profit by intensifying the labour process and by forcing workers to accept cuts in their wage rates. As Marx points out in *Capital*, these often brutal methods of increasing the rate of surplus value are some of the primary ways that the capitalist system eventually restores the rate of profit in order to set the stage for a new wave of rapid accumulation.⁸⁶

Finally, within this context of declining rates of investment and decelerating rates of growth of employment, we can no longer assume healthy periods of market growth. Thus, even in the case of local wage increases, it will become increasingly difficult for many regulating capitals to absorb further wage increases through dynamic changes in the relative price structure.

Thus, for the economy as a whole, movements in the productivity of labour and in the general rate of profit do indeed provide important limits to rising wage rates. And it is within this aggregate context that we must finally situate

86 Marx 1967c, pp. 254–5. Another key process is the destruction of capital value. See Marx 1967c, chap. 15.

the previous competitive limits that have been derived for wage rates within single industries. It is also by carefully combining these various levels of analysis that we can finally begin to distinguish the different potential effects of particular movements in the productivity of labour on both the general wage level and on inter-industry wage rates. In the next chapter we will complete our discussion of differential movements in labour productivity by analysing the very important issue of productivity differentials *within each industry*.

Capitalist Competition and Differential Wage Rates (II): Non-regulating Capitals and Differential Profit Rates

In the previous chapter we limited our discussion of wage differentials to regulating capitals across different industries. Although we based our analysis on the strict assumption of equal profit rates for regulating capitals across all industries, we discovered that several potential patterns of persistent wage differentials can nevertheless be derived from Marx's analysis of capitalist competition between and within industries.

In this chapter we broaden the range of differential wage phenomena that can be anticipated from Marx's analysis by making our discussion considerably more complex. In the first section, we discuss the far more restrictive limits to rising wage rates for capitals that are less efficient than the regulating conditions of production within an industry. We will then develop a similar analysis for capitals that are more efficient than regulating firms due to the possession of unique conditions of production that cannot be readily reproduced. Finally, the last section will relax our previous assumption of equal profit rates between industries in order to further explore the implications of Marx's argument concerning the dynamic equalisation of profit rates through tendential regulation (see chapter 5, the section titled 'Competition between Industries').

The Case of Less Efficient Capitals

Even in the best case scenario when wages are increasing across an entire industry, the constraints on rising wages within less efficient capitals tend to be significantly more restricted in both the short- and the long-run. In the short-run (i.e. when relative prices have not yet adjusted to the industry-wide wage increase), these capitals will be primarily disadvantaged by three key factors: higher unit costs, higher unit labour requirements, and lower profit margins. In the long-run, they will also be adversely affected by their inability to regulate movements in their industry's price of production. Thus, even when relative prices have eventually adjusted to allow the *regulating* capitals to achieve the general rate of profit, the profit margins and profit rates of less efficient capitals will remain permanently reduced. Moreover, their initial cost

disadvantage vis-à-vis regulating capitals will tend to be increased. In addition to providing a rich foundation for wage differentials within each industry, these more restricted wage constraints for less efficient capitals can also provide the basis for important patterns of *inter-industry* wage differentials.

Although institutionalists have sometimes noted that intra-industry wage differentials may periodically arise due to the presence of differential conditions of production within an industry,¹ these results have not been systematically analysed within a framework of competitive wage determination. Moreover, the implications for inter-industry wage differentials have hardly been recognised at all. Once again, this is primarily due to the widely held neoclassical assumption that differential conditions of production (and hence, differential profit rates) are not a general result of effective capitalist competition within industries.² As we have argued in chapter 5, however, Marx very persuasively suggests that differential conditions of profitability within each industry are an expected outcome of ongoing capitalist competition.

Initial Limits to Rising Wage Rates: Holding Prices Constant

In contrast to the previous chapter, which developed a detailed analysis of three different competitive limits to rising wage rates, this section will primarily focus on the limit that is determined by the immediate profitability of the non-regulating capitals (i.e. the profit margin per unit labour requirement). In chapter 6, the unit costs of subdominant capitals provided an important limit to rising wage rates because it ensured that our regulating capitals could maintain their status as the least cost producer within the industry. Because less efficient capitals are not regulating capitals to begin with, however, this second limit is no longer relevant here.

Finally, although the 'costs of obstruction' continue to remain relevant to this discussion, the implications of this limit for non-regulating capitals are easily derived from the previous discussion in chapter 6. It is important to note, however, that in the case of less efficient capitals, the potential costs of obstruction may play a far more restricted role. Indeed, where less efficient capitals have significantly higher unit costs relative to regulating capitals, this cost disadvantage may become the dominant factor placing constraints on wage rates regardless of the militancy of the workers.

1 Reynolds 1951 and Averitt 1968.

2 Even within unorthodox analyses of differential wage and profit rates, firms within each industry are generally assumed to have very similar levels of efficiency. See Edwards 1979; Howell 1982; and Bowring 1986.

Within Industries

To lay the foundation for our discussion of less efficient capitals, we will once again rely on Marx's general arguments concerning the dynamics of technical change and the development of differential cost structures within industries. Within 'modern industry', Marx repeatedly argues that the primary means of increasing the productivity of labour (and hence lowering unit costs) is through increasing capital intensity.³ As noted in chapter 3, the key way for capitalists to increase productivity is through the mechanisation of production, which generally entails increases in the scale of plant and equipment.⁴ Thus, decreases in unit costs are primarily achieved through increasing levels of fixed capital investment and rising fixed capital costs per unit output. As Shaikh has pointed out, 'Higher fixed costs are traded off in return for lower variable costs – as long as the overall costs per unit output are reduced. This is the capitalization of production'.⁵

Given these rising fixed capital costs, unit depreciation charges and unit auxiliary costs (i.e. electricity, fuel, etc.) will also tend to rise. Equally important, increases in the productivity of labour normally imply that workers process ever greater amounts of materials per hour. Thus, comparing cost structures across different capitals within any particular industry, less efficient capitals will tend to be less capital-intensive and have lower fixed capital costs per unit output (Kf/Q). They will also tend to have higher unit costs (k), lower productivity [i.e., higher unit labour requirements ($L/Q = l$)], and a higher ratio of labour requirements to total unit costs (l/k).⁶

Using an asterisk (*) to designate the relevant variables for the regulating capitals within an industry, we can summarise the above general results in the following manner:

3 'But whether condition or consequence, the growing extent of the means of production, as compared with the labour-power incorporated with them, is an expression of the growing productiveness of labour' (Marx 1967a, p. 622).

4 'The cheapness of commodities depends, *ceteris paribus*, on the productiveness of labour, and this again on the scale of production' (Marx 1967a, p. 262).

5 Shaikh 1987, p. 116.

6 'The relative magnitude of the element of price, which represents the value of the means of production only, or the constant part of capital consumed, is in direct, the relative magnitude of the other element of price that pays labour (the variable part of capital) is in inverse proportion to the advance of accumulation' (Marx 1967a, p. 622).

Less Efficient Capitals vs. Regulating Capitals ()*

$$\begin{array}{rcl}
K/L & < & (K/L)^* \\
Kf/Q & < & (Kf/Q)^* \\
l & > & l^* \\
k & > & k^* \\
k/l & < & (k/l)^* \\
l/k & > & (l/k)^*
\end{array}$$

Given these assumptions concerning differential conditions of production within a typical industry, we can now derive some fairly general results concerning the limits to rising wage rates for non-regulating capitals. As noted earlier, one of the primary limits to rising wage rates for these less efficient producers is determined by their immediate conditions of profitability. Thus, as in chapter 6, we will initially concern ourselves with the profit margin per unit labour requirement. Or

$$\frac{m}{L/Q} = \frac{m}{l}$$

In the case of capitals that are less efficient than regulating capitals, this limit tends to be more constrained for two reasons. Because these capitals must also sell their products at the regulating price of production, their profit margins ($m = p - k$) will obviously be more constrained as a result of relatively higher unit costs ($k > k^*$). Second, we have just pointed out that less efficient capitals will also tend to have larger unit labour requirements ($l > l^*$). Given that these two factors mutually reinforce each other, there will be considerably less space for wage rates to rise within these capitals. Moreover, the higher the unit costs, the lower the profit margins and the higher the unit labour requirements. Thus, within any particular industry, the space for rising hourly wage increases will tend to narrow rather quickly as we move down the ranking of capitals by their relative level of efficiency.

In addition to having less room for wages to rise, it is also important to note that a given wage increase will tend to have far more serious effects on non-regulating capitals. For any given capital, the unit cost-price (k) is determined in the following manner:

$$k = M/Q + wL/Q + dKf/Q \quad (1)$$

Where:

M = materials costs

wL = labour costs
 d = annual rate of depreciation
 Kf = fixed capital

Assuming that the local wage increase does not have a significant effect on other input costs, we can generally derive the percentage change in unit costs for a given percentage change in the wage rate by calculating the partial elasticity of (k) with respect to (w) .

$$E_{k,w} = \frac{\partial k}{\partial w} \cdot \frac{w}{k} = \frac{L}{Q} \cdot \frac{w}{k} = \frac{wl}{k} \quad (2)$$

From equation (2) we can see that the percentage change in unit costs is a function of the wage share in total unit costs (wl/k) . Furthermore, if we begin with equal wage rates across the economy, the percentage change in unit costs will be directly related to the ratio of unit labour requirements to total unit costs (l/k) .⁷

In the above comparison of regulating and non-regulating capitals, we already noted that less efficient capitals will normally have higher unit labour requirements relative to total unit costs $(l/k > l^*/k^*)$. Thus, starting out from similar wage rates within an industry, an industry-wide wage increase will clearly tend to result in a higher percentage increase in the unit costs of the less efficient capitals. Hence, not only will these non-regulating capitals tend to have lower profit margins to start out with, but a given wage increase will cause both profit margins and profit rates to decline far more rapidly relative to regulating capitals.

Between Industries

Between industries, different levels of capital intensity will once again play an important role in the establishment of differential limits to rising wage rates. As in our discussion of regulating capitals in chapter 6, less efficient capitals within highly labour-intensive industries will tend to be burdened with

7 Because our results are derived from the *wage share* in total unit costs (rather than from the ratio of unit labour requirements to unit costs), the development of differential wage rates between and within industries will obviously tend to complicate these results. Nevertheless, given that we are attempting to establish how wage differentials among similar workers can ultimately develop within the confines of capitalist competition, this initial assumption of equal wage rates is still analytically useful. (For further implications concerning inter-industry wage differentials, see footnote 8).

additional disadvantages when attempting to absorb rising wage rates. In addition to experiencing all of the disadvantages discussed in the previous section, the overall profit margins for *all* of these labour-intensive capitals (regulating and non-regulating) will tend to be lower relative to capital-intensive industries. Moreover, as also noted in chapter 6, labour-intensive industries will tend to have lower (k/l) ratios. Consequently, we can assume that labour-intensive industries will generally have *higher* labour requirements relative to total unit costs (i.e. higher l/k ratios).

Thus, even if less efficient capitals within labour-intensive sectors are equally disadvantaged by the same unit cost differentials as their cousins in more capital-intensive sectors, they will nevertheless tend to be harder hit by a given wage increase. Indeed, not only is there less immediate space for wage rates to rise due to lower profit margins, but the percentage increase in unit costs will also tend to be greater as a result of higher (l/k) ratios.⁸

Numerical Example

In order to illustrate the above results, we can use the two-sector example from chapter 6. Here we will simply allow the previous 'subdominant' capitals to play the role of our less efficient capitals within each industry.⁹ Reproducing the results from table 6.5 on page 223, and calculating the appropriate information for all capitals in industries A and B, we now have the results shown in table 7.1.

8 As we already noted in the previous footnote, because the percentage change in unit costs is a function of the wage share in total unit costs (wl/k), the development of significant inter-industry wage differentials may tend to complicate the above results. For example, if wages in highly capital-intensive industries are extremely high relative to labour-intensive sectors, these 'core' sectors could theoretically possess a higher wage share in total costs despite their relatively low (l/k). As Howell has shown, however, the ratio of actual wage rates in capital-intensive sectors relative to labour-intensive sectors has tended to range from 1.3 in the 1950s and 1960s to 1.56 in the late 1970s (Howell 1982, p. 147). On the other hand, corresponding ratios comparing critical technical variables across these same sectors tend to be of a significantly higher order. Comparing differences in overall (K/L), materials costs per worker, and energy costs per worker, Howell estimates these ratios to be 4.6, 2.3, and 7.2, respectively (Howell 1982, p. 129). Thus, even within the postwar period when inter-industry wage differentials have been quite large, it is still generally true that the wage share in total costs remains significantly higher in labour-intensive sectors of the US economy.

9 Of course, it is entirely possible for a number of other firms to exist that are suffering from even higher unit costs and hence, lower profit margins. Clearly, the more inefficient a firm is, the more restrictive the limits to rising wage rates will become.

TABLE 7.1 *Comparing initial costs across Industries A and B*

INDUSTRY 'A' – HIGH (C/V), (K/L)										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
F I R M	Total Capital Adv. (K)	Total Labour Hrs (L)	Output (Q)	Unit Cost k*, k	r*, r	p*	K/L	l/k	$\frac{k-k^*}{k^*}$	$\frac{m}{L/Q}$
A*	90C + 10W	20	10	\$10	.5	\$15	5	.2	25 %	\$2.50
A	72C + 28W	56	8	\$12.50	.2	\$15	1.79	.56		\$0.36
INDUSTRY 'B' – LOW (C/V), (K/L)										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
F I R M	Total Capital Adv. (K)	Total Labour Hrs (L)	Output (Q)	Unit Cost k*, k	r*, r	p*	K/L	l/k	$\frac{k-k^*}{k^*}$	$\frac{m}{L/Q}$
B*	50C + 50W	100	100	\$1	.5	\$1.50	1	1	25 %	\$0.50
B	40C + 60W	120	80	\$1.25	.2	\$1.50	0.83	1.2		\$0.17

To allow us to generalise from the results in table 7.1, it is important to review several points. First, the example was constructed assuming equal wage rates of \$0.50 per hour across all capitals. Second, the unit costs of less efficient capitals in both industries have been constructed so that the percentage differential in unit costs between regulating and non-regulating capitals is the same for both industries (see column 9). Finally, although this example abstracts from fixed capital, the differences in cost structures between regulating and non-regulating capitals within each industry nevertheless conform to Marx's general argument. Within each industry, less efficient capitals possess both higher unit labour requirements and a higher share of labour costs in total unit

costs (wl/k) relative to regulating capitals.¹⁰ Comparing the immediate limits to rising wage rates for regulating (*) and non-regulating capitals within each industry, we can now see that the above general results are clearly illustrated. As anticipated, the profit margins per unit labour requirements (see column 10) are significantly lower for each of the non-regulating capitals (A and B) as a result of both higher unit costs and higher unit labour requirements.

Between industries, we also see that the non-regulating capitals in industry B are doubly disadvantaged by the industry's relatively low level of capital intensity. Despite identical cost disadvantages vis-à-vis regulating capitals, B's profit margin per unit labour requirement is significantly lower than A's. Thus, the limit to rising hourly wage rates is far more restrictive. In fact, while capital A's profitability would be eliminated by a wage increase of \$0.36 per hour, capital B would be facing bankruptcy as a result of less than half that increase (i.e. \$0.17).

Last, it is important to note that the less efficient capitals in industry B have a higher ratio of labour requirements to total unit costs (l/k) relative to those in industry A (see column 8). As a result, their profit margins and profit rates will be more severely affected by a given wage increase across both industries.

Short-Term Effects of Rising Wage Rates

To further explore the implications of these differential limits to rising wages, we will now examine the short- and long-term effects of a 20 percent wage increase across *all* capitals in both industries. In order to capture the short-term effects of the wage increase, we will first examine the results while prices remain at their original levels. We will then derive, our long-term results by allowing market prices to adjust to the new prices of production which continue to be determined by the regulating conditions of production within each industry.

Moving to the short-run scenario, table 7.2 illustrates the results of a 20 percent rise in wage rates (from \$0.50 to \$0.60 per hour) while prices remain constant.

Within industries, an equal wage increase for all capitals will clearly have a far more negative effect on the profit margins and profit rates of the non-

10 This was achieved by assuming equal unit materials costs for both regulating and non-regulating capitals within each industry. Thus, the above intra-industry differentials in unit costs are due solely to differentials in the productivity of labour.

TABLE 7.2 *Short-run results of 20 percent wage increase*

INDUSTRY 'A' – HIGH (C/V), (K/L)									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
F I R M	Total Capital Adv. (K)	Total Labour Hrs (L)	Output (Q)	Unit Cost k*, k	r*, r	p*	Ori- ginal κ/L	Ori- ginal l/k	$\frac{k-k^*}{k^*}$
A*	90C+12W	20	10	\$10.20	.47	\$15	5	.2	29%
A	72C + 33.6W	56	8	\$13.20	.14	\$15	1.79	.56	
INDUSTRY 'B' – LOW (C/V), (K/L)									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
F I R M	Total Capital Adv. (K)	Total Labour Hrs (L)	Output (Q)	Unit Cost k*, k	r*, r	p*	Ori- ginal κ/L	Ori- ginal l/k	$\frac{k-k^*}{k^*}$
B*	50C + 60W	100	100	\$1.10	.36	\$1.50	1	1	27%
B	40C + 72W	120	80	\$1.40	.07	\$1.50	0.83	1.2	

regulating capitals (see column 5). Once again, these results are due to the fact that less efficient capitals tend to possess lower levels of capital intensity, hence higher unit labour requirements, and a higher share of wage costs in total costs (relative to the regulating conditions of production within each industry).

Starting out with equal wage rates, we have already seen from equation (2) above that the percentage increase in unit costs for each capital will be directly proportional to the ratio of unit labour requirements to total unit costs (l/k). As shown in the example, this is precisely what has happened. Given that capital A has an (l/k) ratio that is approximately 2.8 times higher than the respective ratio for regulating capitals (see column 8), A experiences an increase in unit costs that is 2.8 times higher than capital A*. Thus, while A* sustains a 2 percent

increase in its unit costs, A sustains a 5.6 percent increase (compare column 4 in tables 7.1 and 7.2).

Because the less efficient capitals already possessed significantly higher unit costs and far lower profit margins *before* the wage increase, these larger percentage increases in unit costs become even more serious when we look at the resulting declines in profit rates [$r = (P^* - k) Q/K$]. Comparing column 5 in tables 7.1 and 7.2, we see that while the regulating capital A^* merely sustains a 6 percent decline in its profit rate (from 50 percent to 47 percent), capital A is forced to suffer a 30 percent decline in its already low profit rate (from 20 percent to 14 percent).

Comparing results across both industries, we see that although capital B is similarly disadvantaged in terms of relative efficiency, the above wage increase causes its profit rate to decline by 65 percent! Thus, as anticipated in the above general discussion, the very same wage increase will tend to result in far more serious declines in profit rates for the non-regulating capitals of industry B. (In fact, in certain cases, inefficient capitals within labour-intensive industries may not even be able to survive the transitional period until relative prices finally adjust to the new regulating prices of production!) Here again, these more serious results are a direct result of industry B's significantly higher labour intensity.¹¹ This same factor also causes the profit rate of industry B's regulating capitals to decline far more significantly relative to regulating capitals in industry A.

Summing up our results, the existence of less efficient capitals within each industry automatically implies that the immediate short-run limits to rising wage rates will vary quite substantially between and within industries. Thus, while some non-regulating capitals may be able to endure a significant rise in wage rates without serious difficulties, that very same wage increase may literally drive other non-regulating capitals to the wall. *Within each industry*, less efficient capitals are hurt more because they not only have higher unit costs and higher unit labour requirements, but because they also tend to have higher labour intensity. Hence, a given increase in wage rates will tend to have a greater percentage impact on unit costs as a result of higher unit labour requirements relative to total unit costs (l/k). *Between industries*, less efficient capitals in industries that are highly labour-intensive will be doubly disadvantaged relative to non-regulating capitals in capital-intensive industries. In addition to

11 Once we allow the new prices of production to be achieved, we will see that this initial disadvantage for non-regulating capitals within industry B may be partly reduced or even reversed.

the above general problems of being less efficient relative to regulating capitals within their respective industries, higher levels of labour intensity imply two additional problems. Not only will these capitals tend to have lower overall profit margins per unit labour (relative to capitals in more capital-intensive industries), but they will also tend to have even higher unit labour requirements relative to total unit costs.

Further Implications for Interindustry Wage Differentials

Before going on to examine the longer term effects of the wage increase as market prices are allowed to adjust, it is important to note that *if the above wage increase had only occurred within the less efficient capitals, relative prices would not display any necessary tendency to adjust*. In the previous chapter we saw that rising wage rates within all of the regulating capitals of a particular industry would eventually cause relative prices to adjust because these capitals act as the practical standard for the industry as a whole. Thus, when the regulating rates of profit are squeezed by rising wage rates, a deceleration in the rate of growth of industry supply will eventually bring about a rise in relative prices. Yet, when wages only rise within *non-regulating* capitals, the regulating conditions of production remain unchanged. Thus, the rate of growth of supply will not tend to decelerate, and relative prices will not tend to adjust. *Under these circumstances, in other words, the above short-term results would become permanent.*

It is within this context that we can now see how certain non-regulating capitals can become quite vulnerable to rising wage rates that do not affect the industry as a whole. It is also here that we can begin to see how these far more restrictive limits to rising wage rates may have very important consequences for inter-industry wage differentials.

As noted in chapter 5, once national capitals within a particular industry begin to compete across national borders, it becomes possible for the regulating capitals of certain world industries to be located outside of the nation (or region) being investigated. Thus, it also becomes possible for *an entire national industry* to be placed in the position of non-regulating capitals, which has just been analysed. Given their non-regulating status within the world industry, the ability of these less efficient local capitals to pay higher wage rates will be seriously restricted by two key conditions. First, like all less efficient capitals within any industry, these local capitals will tend to have lower profit margins and lower profit rates relative to the regulating conditions of production in the worldwide industry. (Within the nation in question, the average rates of profit for these local industries will also tend to be below the rates of profit for local industries that *do* contain regulating conditions of production.) Second, the

non-regulating status of these capitals suggests that they will encounter significant difficulty attempting to pass on local wage increases in higher prices – even in the long-run!

Given these restrictive conditions, both the short- and the long-run repercussions of a sizable wage increase could become quite serious. If local wage rates merely rise within these less efficient national capitals (and not within the world industry as a whole), sharply declining profit rates may certainly cause the rate of growth of supply directly pertaining to these *local* capitals to decelerate.¹² It may even cause local output and employment levels to decline absolutely. Unfortunately for these national capitals, however, the rate of growth of supply for the *industry as a whole* will not tend to decelerate relative to demand, and prices will not be forced upward. Without strong import restrictions, the declining growth rates of these local capitals will be eagerly supplemented by the growth of imports from the regulating capitals producing outside of the nation in question. Thus, not only will these local capitals be forced to endure even lower rates of profit for a sustained period of time, but their market shares may become seriously compromised.¹³

12 The severity of the decline in profit rates will depend on both the level of efficiency of the capitals in question and the capital intensity of the industry as a whole. The reader should also note that we are presently discussing rising wage rates in only one particular industry. Hence the potential feedback effects of this wage increase on aggregate demand and related employment levels will tend to be minimal.

13 The US steel industry is an important example of a national industry that continued to experience rising labour costs despite the loss of its regulating status. As a result of its declining competitive position in the world industry, US steel firms began to suffer from a 'flood of high-grade steel' in the mid-1960s (Adams and Mueller 1986, p. 85). Although most industry executives claimed that uncompetitive hourly wage rates and restrictive union work rules were the primary causes of the US industry's decline, most analysts argue that more important factors were the sluggish adoption of more efficient production methods and rising raw materials costs. In any case, to head off this rise in foreign imports and the resulting decline in profit rates, the US industry convinced the government to adopt various import restrictions throughout most of the 1970s. As a result of these restrictions, the US industry was once again able to pass on all of its rising costs in higher prices, and 'steel prices increased at an annual rate 14 times greater than in the nine years prior thereto' (Adams and Mueller 1986, p. 94). Yet, although profit rates were temporarily shored back up, the US industry's total output and its market share in the world industry continued to decline seriously throughout the 1970s and 1980s. By the late 1970s, the cost of a ton of raw steel produced in Japan was at least \$100 cheaper than similar steel produced in the United States (Craypo 1986, p. 169). Informative discussions of the decline of US steel can be found in Adams and Mueller 1986 and Craypo

By combining Marx's analysis of capitalist competition with our own discussion of wage differentials, we once more discover that the analysis of both differential profit rates and differential wage rates between and within industries must pay careful attention to the *location* of the regulating conditions of production within each industry. Indeed, it may be the case that many 'competitive' sectors of the US economy (e.g. textiles and apparel) that have been suffering from both chronically low profit rates and the inability to pass on wage increases are encountering this fate not because of the absence of high market concentration and monopoly pricing power, but because of the absence of *regulating conditions of production*. On the other hand, many 'core' firms within the United States (e.g. steel, auto, and rubber tyre) that easily accommodated substantial wage increases up into the 1960s were able to do so precisely because they represented the regulating conditions of production within the world industry as a whole. Thus, the phenomena of 'core' and periphery may have a great deal more to do with the relative level of efficiency of these capitals within their respective world industries, rather than with the level of monopoly pricing power. Once again, we have discovered yet another potential basis for inter-industry wage differentials that can be directly derived from Marx's analysis of capitalist competition. Moreover, it is the presence of *intra-industry* differentials in productivity (not inter-industry differentials) that is the key basis for these wage differentials.¹⁴

Long-Term Results of Rising Wage Rates

This final section on less efficient capitals examines the long-term results of local wage increases when relative prices have been allowed to adjust to the new regulating conditions of production that must now entail these higher labour costs. In order to simplify the discussion of these changes in the prices of production, we will continue to assume that wages are only rising within the

1986. Although these authors view the US industry as a declining oligopoly, the loss of regulating status provides an alternative explanation for the phenomena described in these accounts.

14 Marx clearly recognised that the national location of the regulating conditions of production could be an important source of inter-industry wage differentials. Thus, in order to argue against the notion that prices are primarily determined by wage rates, he noted the following: 'I might tell you that the English factory operatives, miners, shipbuilders, and so forth, whose labour is relatively high-priced, undersell by the cheapness of their produce all other nations; while the English agricultural labourer, for example, whose labour is relatively low-priced, is undersold by almost every other nation because of the dearness of his produce' (Marx 1970, p. 200).

sectors being considered. Thus, the effect on the general rate of profit for the economy as a whole will tend to be very small. Similarly, we will continue to assume that any potential feedback effects on other input costs are minimal.¹⁵

Given that both constant capital costs and the general rate of profit will essentially remain constant, the changes in the prices of production that will eventually allow the regulating capitals to achieve the average rate of return can be easily derived. As noted in our previous discussion of the first limit to rising wage rates in Chapter 6, the general formula for the price of production (P^*) is the following:

$$P^* = k^* + r^* (K/Q) \quad (3)$$

Expanding this formula so that all of the respective components of both unit costs (k) and total capital costs (K) are expressed obtains the following:

$$P^* = \frac{M}{Q} + \frac{wL}{Q} + \frac{dKf}{Q} + r^* \left[\frac{\frac{M}{t} + \frac{wL}{t} + Kf}{Q} \right] \quad (4)$$

(t = rate of turnover = 1)

Holding r^* , Kf , M , and t constant, we can simply calculate the necessary change in P^* in the following manner:

$$\Delta P^* = \frac{\Delta wL}{Q} + r^* \frac{(\Delta wL)}{Q} \quad (5)$$

Furthermore, to calculate the percentage change in the price of production for a given percentage change in the wage rate, we can calculate the partial elasticity of (P^*) with respect to (w).

$$E_{P,w} = \frac{\partial P}{\partial w} \left[\frac{w}{P} \right] = \frac{L}{Q} + r^* \frac{L}{Q} \left[\frac{w}{P} \right] = \frac{wL}{PQ} (1 + r^*) \quad (6)$$

Given that r^* remains constant, the final expression for partial elasticity indicates that the percentage change in price will be directly proportional to the share of labour costs in total output (wL/PQ).

Using equation (5) we can now return to the original numerical example and calculate the new prices of production that will be required in both industries

15 See note 21, chap. 6, on Marx's original transformation procedure.

TABLE 7.3 Long-run results of 20 percent wage increase

INDUSTRY 'A' – HIGH (C/V), (K/L)									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
F I R M	Total Capital Adv. (K)	Total Labour Hrs (L)	Output (Q)	Unit Cost k*, k	r*, r	p*	Ori- ginal K/L	Ori- ginal l/k	$\frac{k-k^*}{k^*}$
A*	90C + 12W	20	10	\$10.20	.50	\$15.30	5	.2	29%
A	72C + 33.6W	56	8	\$13.20	.16	\$15.30	1.79	.56	
INDUSTRY 'B' – LOW (C/V), (K/L)									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
F I R M	Total Capital Adv. (K)	Total Labour Hrs (L)	Output (Q)	Unit Cost k*, k	r*, r	p*	Ori- ginal K/L	Ori- ginal l/k	$\frac{k-k^*}{k^*}$
B*	50C + 60W	100	100	\$1.10	.50	\$1.65	1	1	27%
B	40C + 72W	120	80	\$1.40	.18	\$1.65	0.83	1.2	

(A and B) as a result of the \$0.10 increase in the hourly wage rate. In table 7.3, these new prices of production are indicated in column 6. Because these new prices will eventually become the new centres of gravity for market prices in each of the respective industries, we then used these prices to calculate the long-term results of the wage increase on profit rates (see column 5).

Table 7.3 shows that although the above changes in market prices will clearly lessen the negative impact of rising wage rates for the less efficient capitals (A and B), these capitals will nevertheless sustain a permanent decline in profit margins and profit rates. While the new prices of production will accommodate the rise in unit labour costs for *regulating* capitals, they will not fully compensate the less efficient capitals for their relatively greater increases in unit

costs. Thus, while regulating capitals within both industries are eventually able to achieve their previous rates of return, the less efficient capitals are not so fortunate.

Assuming that the less efficient capitals can survive the more serious effects of rising wage rates during the transition to new prices of production, the long-term effects on these capitals are as follows.¹⁶ While capital A is forced to sustain a 20 percent decline in its profit rate from 20 percent to 16 percent, capital B must sustain a 10 percent decline from 20 percent to 18 percent.

Unfortunately for the less efficient capitals, these permanent declines in profit rates are not the only negative effects of the industry-wide wage increase. Another result is that higher increases in unit costs for the less efficient capitals will also tend to enhance the competitive advantage of the regulating capitals within each industry. This increased competitive advantage is clearly expressed by the increased differential in unit costs between regulating and non-regulating capitals (compare column 9 in tables 7.1 and 7.3). Before the wage increase, both non-regulating capitals were suffering a 25 percent differential in unit costs. Now, both of these cost differentials have increased.

Given both of these results, it now becomes clear why many regulating firms often support the development of industry-wide wage patterns when they can no longer defeat union pressures to raise their own wage rates. Indeed, if these higher wage rates can be imposed on the entire industry, some of the more inefficient capitals may be forced to go to the wall. Thus, in addition to enhancing their competitive advantage versus other surviving capitals, regulating capitals may actually be able to enlarge their market share as a result of the wage increase.¹⁷

16 Here again, the reader should note that this transitional stage is entirely left out of comparative static analyses.

17 At other times, when regulating profit rates are unusually low and/or union organisation is extremely weak, these same regulating capitals may attempt to impose a very different type of wage pattern using the *less* efficient capitals as the 'competitive standard'. Here, the primary goal is to reintroduce wage competition into the competition of capitals. The now infamous struggle at the Hormel plant in Austin, Minnesota during the 1980s was an unfortunate example of this type of situation. In this case both Hormel and the international leadership of the United Food and Commercial Workers (UFCW) argued that workers at Hormel would ultimately have to submit to wage concessions given that other less efficient firms in the industry had already accepted lower wage rates. Hence, in order not to break the industry pattern, the union leadership curiously maintained that workers should abide by the new 'competitive' standard. Yet, interestingly enough, the workers at Hormel and the Local P-9 leadership saw things differently because they had a very solid sense of the importance of setting the wage standard at the regulating firm.

For workers within these less efficient capitals, the development of industry-wide wage patterns can sometimes present a serious dilemma. In the long-run, the achievement of industry-wide wage standards will clearly strengthen the union movement as a whole by removing wage competition from the arsenal of weapons used by capital within the battle of intra-industry competition. In the short-run, however, workers within some of the least efficient non-regulating capitals may be forced to suffer declining levels of employment in order to achieve wage rates that are in line with the industry-wide pattern.¹⁸ Yet, even if workers do agree to accept wage concessions in order to save employment levels, there is no guarantee that these less efficient capitals will be able to survive in the long-run. On the contrary, lower wage rates may merely allow these capitals to temporarily avoid the only long-run solution to their ultimate survival, which is investment in more productive plant and equipment. Even worse, as we saw in numerous US industries in the 1980s (e.g. meat-packing, steel, auto), these wage concessions can often allow other capitals in the industry to begin to 'whipsaw' wages downward throughout the entire industry. And as we witnessed in auto and steel, several rounds of deep concessions in wages and working conditions did little to prevent the permanent layoff of thousands of workers.¹⁹ Thus, through no fault of their own, workers within less efficient capitals are often placed in an extremely difficult situation.²⁰

As the president of Local P-9, Jim Guyette, clearly pointed out: 'If the newest plant in the industry takes a cut in wages, then the other plants are going to say they can't compete. If concessions are going to stop, then they are going to have to stop at the most profitable company with the newest plant' (Moody 1988, p. 316). See also Green 1990.

- 18 A classic example of this type of trade-off was experienced by the miners in the 1920s. At that time John L. Lewis and the UMW essentially forced the closing of some of the least efficient and most dangerous mines because employers continually used their exceptionally high operating costs as an excuse to pay substandard wage rates and recklessly ignore conventional safety standards.
- 19 For excellent analyses of how union wage concessions in the 1980s did not save jobs but instead enabled many US industries to unleash a relentless downward spiral of wage competition, see Slaughter 1983 and Moody 1988. In the case of steel, see also Craypo 1986.
- 20 The Swedish labour movement's 'solidaristic wage policies' represented an interesting attempt to at least partially resolve this dilemma for workers who are employed in backward firms. Recognising that their continued demands for higher wage rates throughout the Swedish economy would put significant pressure on inefficient firms, in the 1950s both the unions and the Social Democratic Party pushed for an 'active' government labour market policy that would retrain redundant workers and create alternative jobs for workers who were unable to relocate or retool. Although these policies appeared to be fairly suc-

Before moving on, two final points concerning the long-run effects of the above industry-wide wage increases are worth noting. First and foremost, if we compare the long-run results of these wage increases for the regulating capitals across both industries, it is clear that both industries should ultimately possess the long-run potential to incorporate higher wage rates within their cost structures, regardless of the level of capital intensity, the level of market concentration, or any other so-called competitive restrictions to rising wage rates. Although effective union organisation may certainly be more difficult in many labour-intensive industries, the long-run potential for rising wage rates is nevertheless present. Thus, contrary to institutionalist arguments based on the dual economy, there is nothing within the nature of capitalist competition within these industries that will tend to act as an insurmountable barrier to rising wage rates (providing, of course, that these rising wage rates take place within all of the regulating capitals in the industry).

Second, when we compare our results for non-regulating capitals in each industry, we discover an even more surprising effect. Within the short-term scenario when prices were held constant, we saw that the profit rates of less efficient capitals in the more labour-intensive industry (B) were more seriously affected by the wage increase. Within the short-run, the profit rate for capital B plummeted by 64 percent as opposed to a 32 percent decline for capital A. Yet, once relative prices adjusted to the new prices of production, this initial disadvantage for capital B was actually reversed! Thus, while capital A is eventually forced to sustain a 20 percent decline in profit rates, capital B curiously sustains only a 10 percent decline (see column 5, table 7.3).

The reason for this surprising reversal in long-run effects is ultimately rooted in what Marx described as the 'Ricardo Effect' which takes place when wage increases occur across industries with varying organic compositions (or different capital intensities).²¹ Put simply, because industry B is far more labour-intensive, an equal increase in wage rates will require a larger percentage increase in this industry's price of production in order to allow the regulating capitals to achieve the average rate of profit for the economy as a whole.²² Thus,

cessful in the 1950s and 1960s, they came under increasing employer attack in the late 1960s and 1970s (see Esping-Anderson and Friedland 1982).

21 See Marx 1967c, chap. 11.

22 In our example, this effect is slightly transformed because we assumed that the local wage increase would not have a significant effect on the general rate of profit. Thus, by simply deriving the partial elasticity of the price of production with respect to the wage rate, we saw that the percentage change in prices would be directly proportional to the wage share in total output (wL/PQ). In the case of a general wage increase across the entire economy,

although the less efficient capitals will obviously not be allowed to recoup their previous profit rates before the wage increase, this relatively greater increase in market prices may enable them to recover a sizable portion of their short-term losses. The strength of the Ricardo effect in reversing the short-run positions of less efficient capitals will ultimately depend on how far their respective industry deviates from the average organic composition for the economy as a whole.

Summing up the discussion of less efficient capitals, it is quite clear that once we recognise that capitalist competition tends to generate differential conditions of productivity within each industry, it also generates differential limits to rising wage rates. Hence, competition also lays the potential basis for certain patterns of persistent inter- and intra-industry wage differentials. Indeed, even in the best case scenario where an equal wage increase is imposed on the entire industry, the short-run effects on profit rates and profit margins can be quite serious for non-regulating capitals, depending on: (1) their relative efficiency within the industry, and (2) the capital intensity of the industry as a whole. Although these negative effects will be somewhat reduced in the long-run, *all* of the less efficient capitals will nonetheless sustain permanent reductions in profitability and an enhanced competitive disadvantage versus regulating capitals. Finally, if wage rates should only rise within these less efficient capitals, relative prices will not adjust to these higher labour costs, and decreases in profit margins and profit rates will be far more serious.

Thus, within Marx's analysis of capitalist competition, the competition of capitals does not necessarily tend toward the equalisation of wage rates for workers of similar skill and ability. In fact, real capitalist competition often *mitigates against the equalisation of wage rates* between and within industries as less efficient capitals are continually compelled to pay lower than average wage rates in order to prolong their survival. Different levels of efficiency do provide an important foundation for differential wage rates. But, contrary to neoclassical theory, it is the efficiency of the capitalists' plant and equipment that is the crucial factor here, not differences in the skill and ability of individual workers.²³

the relative price structure would be transformed far more dramatically. Indeed, Marx noted that while prices in labour-intensive industries would tend to rise, the prices of production of extremely capital-intensive industries may actually fall. This again reminds us that within Marx's labour theory of value, changes in the general wage level do not necessarily imply changes in the aggregate price level.

23 'Whether the material factors of the process are of normal quality or not, depends not upon the labourer, but entirely upon the capitalist' (Marx 1967a, p. 196).

Thus, although the high costs of production of inefficient capitals will often have very little to do with the skill and quality of the workers who are employed in these firms, these workers will often find it difficult to achieve the average wage rate. Indeed, in the presence of substantial differentials in unit costs, Marx pointed out that *skilled* workers who are employed by the most backward capitals may be forced to concede to wage rates that are actually lower than the wages of *unskilled* workers who are employed by the most advanced capitals.²⁴

Finally, if we now combine the above results arising from capitalist competition with the dynamics of the aggregate labour market, we see that the capitalist mode of production as a whole contains very powerful forces that constantly regenerate wage inequality. For, not only does the capitalist mode of production continually create inefficient firms and declining industries that are constantly forced to seek out low-wage workers, but it also generates a never ending supply of desperate workers who are repeatedly forced to work at these substandard wages in order to survive. As Lloyd Reynolds pointed out in the early 1950s, 'except during brief periods of peak prosperity, even the lowliest jobs find an adequate labour supply'.²⁵

In chapter 4, we discussed how the first volume of Marx's *Capital* provides a number of important, yet incomplete, glimpses of how the dynamic interaction of capitalist competition, uneven technical change, and the reserve army of labour creates the basis for sustained differentiation within the working class. In this section we have essentially extended Marx's more detailed analysis of capitalist competition in volume 3 of *Capital* to provide some of the critical missing links between his theory of competition and these far more concrete discussions of differential wage rates.

The Case of More Efficient Capitals

At the other polar extreme of certain industries, non-regulating capitals may also exist that have lower costs and higher profit margins relative to the regulating conditions of production. Here, of course, the limits to rising wage rates will tend to be more relaxed rather than more constrained. Under certain limited circumstances, wages within this type of non-regulating capital may persistently rise *above* wage rates within the regulating conditions of production. It is to these very special capitals that we now turn.

24 See Marx 1967a, chap. 15.

25 Reynolds 1951, p. 246.

In order for non-regulating capitals to be able to maintain a competitive advantage over regulating capitals within the same industry, these capitals must enjoy some form of monopoly over a productive resource that provides them with a unique cost advantage. Thus, what we are essentially describing is the situation of surplus-profits, which often take the form of differential rents.

Although differential rents resulting from unique conditions of production tend to be the general case within agriculture and raw materials production, there are special cases within manufacturing where persistent surplus-profits may also arise. Marx's original discussion of differential rent within manufacturing described a situation where certain factories were able to obtain a special cost advantage as a result of their unique location at the site of a waterfall. Thus, while other factories were forced to utilise more expensive man-made sources of power, these capitals were able to harness the less costly forces of nature. Given these unique cost advantages, these capitals were therefore able to enjoy a surplus-profit above the average rate of return which could then be seized as ground rent by the owners of these special locations.²⁶

Although Marx's example of the waterwheel is clearly outdated, there are situations within modern manufacturing where surplus-profits may still be obtained due to the existence of a unique productive resource. For example, in heavy industries like steel, special locations next to critical sources of raw materials like coke and iron ore may help to reduce transportation costs. In other industries where transportation costs are important, locations close to key ports or vital waterways may provide unique opportunities for exceptionally low costs. Furthermore, legal rights to patents or the possession of a newly developed secret process of production may also be sources of surplus-profits. Finally, certain industries (or firms) that are involved in the processing of raw materials (such as steel fabrication and oil refining) may be vertically integrated so that differential rents deriving from raw materials production can filter back up to the capitalist enterprise as a whole.

While Marx used the example of the waterwheel to develop a detailed analysis of how capitalist landlords can ultimately capture these excess profits as differential rents, this section will argue that these profits may also be transferred in a very different direction. We suggest that at least a portion of these surplus-profits may be captured by organised workers who are employed within these exceptional firms.

Although the logical possibility for the transfer of surplus-profits to workers is obviously contained within Marx's analysis of differential rent, he did not

26 See Marx 1967c, chap. 38.

generally argue that this would be the case. On the contrary, basing his discussions primarily on the agricultural sector, Marx argued that a portion of the rents that accrued to capitalist landlords was often due to the *depression* of the agricultural labourer's wage below 'the normal level of wages'.²⁷

Unfortunately, within the agricultural sectors of virtually all modern capitalist nations, Marx's argument continues to ring true. Given the seasonal nature of agricultural labour and many other circumstances that continue to make effective union organisation unusually difficult, these workers remain among the lowest paid strata within the working class. Thus, certain inter-industry wage differentials within the capitalist mode of production apparently have the ability to persist *for generations!*

Within some of the above-mentioned manufacturing sectors, however, workers who are able to take advantage of more favourable conditions for collective organisation may be able to partially reverse this process and recapture a portion of these surplus-profits. It is this possibility that we will attempt to address.

Before we develop an analysis of the limits to rising wage rates within these exceptional capitals, one additional point concerning Marx's analysis of differential rent is required. Although Marx argued that these surplus-profits were the result of a 'monopoly' of a unique productive resource, he took great pains to show that these surplus-profits were nevertheless limited by the forces of ongoing capitalist competition. In fact, one of his primary purposes in addressing the issue of ground rent in *Capital* was to show that it is precisely within the capitalist mode of production that rents are systematically limited for the first time. Thus, in the introductory remarks to his discussion on ground rent in volume 3 of *Capital*, he noted the following:

Landed property is based on the monopoly by certain persons over definite portions of the globe, as exclusive spheres of their private will to the exclusion of all others. With this in mind, the problem is to ascertain

27 Marx 1967c, p. 627. Here Marx gives us another important example of how wage differentials may be sustained within ongoing competition through the eventual adjustment of regulating prices of production. But, in this case, the adjustment takes place in the downward direction: 'In so far as the wages of the agricultural labourers in a given country are, in general, depressed below the normal average level of wages, so that a deduction from wages, a part of the wages, as a general rule enters into rent, this does not constitute an exceptional case for the farmer cultivating the worst soil. In the same price of production which makes cultivation of the worst soil possible these low wages already form a constituent element' (Marx 1967c, p. 756).

TABLE 7.4 *Unit costs of more efficient capital A¹*

	(1)	(2)	(3)	(4)	(5)	(6)
F I R M	Total Capital Adv. (K)	Total Labour Hrs (L)	Output (Q)	Unit Cost k*, k ¹	r*, r ¹	p*
A*	90C + 10W	20	10	\$10.00	.50	\$15
A ¹	108C + 8W	16	12	\$9.67	.55	\$15

the economic value, that is the realisation of this monopoly on the basis of capitalist production. With the legal power of these persons to use or misuse certain portions of the globe, nothing is decided. The use of this power depends wholly upon economic conditions, which are independent of their will.²⁸

It is with a similar purpose in mind that we will now attempt to analyse the economic limits to differential wage rates. In order to construct an illustration of the competitive limits to rising wage rates under the conditions of surplus-profits, it will be useful to refer back to the previous hypothetical industry A. At this point, however, we will now include an additional non-regulating capital A¹, which has the good fortune of possessing a patent on a new low-cost production process that is not yet generally available.

Let us assume that our new non-regulating capital A¹ has the following total costs, which are depicted in table 7.4. Given these production costs for A¹, the capitalist who owns the rights to this new technology will obviously enjoy profit rates that are persistently above the regulating rate of profit. And, of course, it is these excess profits that form the potential basis for above-average wage rates. The key point, however, will be to determine the competitive limits to these differential wage rates.

As Marx argued in volume 3, 'The two regulating limits of this excess (profit) are on the one hand, the individual cost-price, and thus the individual price of production, and on the other hand, the general (or regulating) price of

28 Marx 1967c, pp. 615–16.

production'.²⁹ Proceeding from Marx's argument, these same differences in cost-prices will also provide us with the competitive limits to rising wage rates for our non-regulating capital (A^1). Again, we simply divide this difference in cost prices ($k^* - k^1$) by the unit labour requirements (L/Q) for our uniquely productive capital. Thus, the limit to rising wage rates for (A^1) will be the following:

$$\frac{(k^* - k^1)}{(L/Q)_{A^1}} = \frac{.33}{1.33} = \$.25$$

From this calculation it should now be clear that even in the case of a wage increase which only affects A^1 , this firm will still enjoy the average rate of profit as long as the wage increase does not exceed the above limit.³⁰ Hence, if workers within this firm can organise effectively, they may be able to achieve a significant wage differential that would be sustainable within the ongoing pressures of capitalist competition. We therefore finally arrive at one of the few instances within Marx's analysis where 'monopoly power' may actually be able to generate above-average wage rates.

Unlike modern monopoly arguments, however, our discussion sets very clear limits to this monopoly power. Indeed, if wages should rise beyond the above limit, these wage rates would be difficult to sustain. Not only would such a wage increase force A^1 to suffer below average profit rates within the short-run, but there would also be no relief in the long-run. Like our less efficient capitals, A^1 does not act as the practical standard for the industry as a whole. This function is reserved only for the regulating capitals. Thus, a reduction in this unique capital's rate of profit will not tend to cause industry supply to decelerate, and there will be no long-run pressure for prices to adjust upward.

If workers persist in demanding wage rates that are above \$0.75 per hour, the rate of profit for the non-regulating capital will be permanently forced below the average rate of profit. And, just as Marx argued that the capitalist landlord would not be able to sustain rents that persistently cut into the capitalist's average rate of profit, workers will also encounter the same difficulty. In short, our capitalist will eventually search for other investment outlets where the average rate of return may at least potentially be obtained.

Finally, in the case of an equal wage increase *throughout the industry*, the above non-regulating capital will continue to possess a distinct advantage over

29 Marx 1967c, p. 641.

30 Starting from the base wage of \$0.50, the above limit implies that downward competitive pressures will intensify if the final hourly wage rate rises above \$0.75 per hour.

all other capitals in the industry. Because this capital's unit labour requirements continue to be lower than the regulating conditions, the new regulating price of production will continue to allow A^1 to achieve above-average rates of return.

In sum, it is quite possible that workers may be able to persistently achieve above-average wage rates within capitals that are enjoying surplus-profits. In order to capture these above-average profits, however, workers would once again have to convince their employers that they are potentially capable of imposing costs of obstruction that are a close equivalent to these above-average wage rates. And, once again, the ability of workers to impose these costs will largely depend on all of the factors that have been discussed in chapter 6.³¹

Implications of the Dynamic Equalisation of Profit Rates

Throughout chapters 6 and 7, we have been assuming that profit rates for the regulating capitals of each industry are precisely equal across all industries. As a result, the only differentials in profit rates that have been allowed to influence the determination of wage rates have been those generated by differences in productivity within each industry. We proceeded in this fashion in order to show that even under the strict assumption of equal profit rates between industries, a whole host of differential wage phenomena can nevertheless be derived. At this point, we will now relax this assumption in order to explore some of the more complex implications of Marx's dynamic analysis of the equalisation of profit rates.

31 In the case of surplus-profits that are due to the monopoly of a scarce resource that is owned by a third party (i.e. a classical case of differential rent), worker efforts to capture these profits would simply tend to be more complex. Rather than two parties, there would now be three factions struggling over these excess profits. And just as in our first scenario, the size of the shares going to the various parties would largely be determined by the relative power of these different factions. Nevertheless, in the case of the landlord it is important to note that there are no competitive forces within the capitalist economy that require the landlord to receive an average rate of return. Indeed, within Marx's analysis, the price of the land itself is merely the capitalised value of the collectable rent calculated at the going rate of interest. Thus, although the struggle over rents would clearly become more complex, workers may still be able to capture a portion of the ground rents that were originally going to the landlord. Whatever the ultimate division of the rents, however, there is one important limit that cannot be overstepped for prolonged periods of time. Neither landlords nor workers will be able to persistently cut into the capitalist's average rate of return.

As already explained in chapter 5, Marx's analysis of the equalisation of profit rates between industries is fundamentally distinct from the neoclassical discussion. Rather than arguing that effective competition will instantaneously generate equal profit rates, the classical Marxist perspective suggests that the real process must be analysed within a dynamic context of tendential regulation that must allow for varying degrees of fixed capital. Given the anarchic nature of capitalist production and the presence of significant amounts of fixed capital, the equalisation of profit rates can only take place through the constant correction of quite substantial deviations above and below the average rate. Thus, not only would we expect to find evidence of the convergence of different profit rates only over fairly long periods of time (i.e. Marx's cycles of 'fat and lean years'), but we would also expect to find evidence of the continual re-differentiation of profit rates as well. The key issue here is to assess the effect that these differential profit rates may (or may not) have on competitive wage determination.

Although most discussions of wage differentials generally assume that there will tend to be a systematic, positive relation between high (low) profit rates and high (low) wage rates, Marx's analysis of capitalist competition provides several reasons to suggest that the relation between profit rates and wage rates may be more complex. To summarise the argument below, any potential relation between wage rates and profit rates will primarily depend on three key issues. *First*, in attempting to assess the relationship between industry rates of return and industry wage levels, it will be important to understand the underlying causes of significant deviations in any particular industry's average rate of return. While some instances of above (or below) average rates of profit may have important implications for wage rates, others may have very little effect.

Second, we must also be careful to distinguish which 'profit rates' are actually being examined. In other words, are we looking at the average rate of profit for the entire industry, the average rate of profit for a local subset of an industry, the regulating rate of profit, or merely the profit rates of individual firms? *Third*, we must also keep in mind that wages rarely rise by themselves. Thus, although certain above-average rates of return may create the *potential* for above-average wage rates, this potential will not be realised unless workers are effectively organised to impose costs of obstruction.

We have just provided a reminder that Marx's discussion of the equalisation of profit rates clearly suggests that many of these above (below) average profit rates may merely be part of the actual equalisation process that necessarily takes place over various cycles of fat and lean years. Thus, in many industries that are characterised by heavy fixed capital investments, periods of rapid

market growth may allow these sectors to enjoy prolonged periods of above-average profitability. On the other hand, these same conditions of sluggish capital mobility also imply that many of these industries will be forced to suffer sustained periods of below average profitability during periods of stagnation. Finally, it would not be surprising to observe dying industries with high levels of fixed capital that are attempting to hang on with below average profit rates for a number of years as they attempt to minimise their losses and depreciate their plant and equipment.

Starting from this more complex understanding of the equalisation process we can therefore see why it is extremely important to investigate the *causes* of these various differentials in inter-industry profit rates. In situations where industries are merely going through various phases of their cycle of fat and lean years, these inter-industry profit differentials will tend to have a less serious impact on inter-industry wage rates. While these periodic swings in industry rates of profit may clearly affect the union's tactical considerations concerning the *timing* of when to press for higher wage rates, they do not provide a sufficient basis for any systematic divergence in either inter-industry profit rates or inter-industry wage rates over prolonged periods of time.

On the other hand, there are other causes of inter-industry profit differentials that may have a very significant effect on wage rates. For example, when an industry has entered a prolonged phase of below normal profit rates because it is actually in the process of *dying*, these low rates of profit may clearly tend to be correlated with below average wage rates. Indeed, the ability of many of these firms to prolong their survival may be predicated on their ability to force workers to accept substandard wage rates.

In both of the above cases, we have been discussing situations where the rates of profit for *all* capitals within an industry will tend to be moving in similar directions due to circumstances that are affecting the industry as a whole.³² Thus, the analytical distinction between the various rates of profit that have been listed above may not be quite so critical. In other cases, however, the failure to distinguish between these different types of profit rates can result in serious misinterpretations of the data. Indeed, although empirical investigators may believe that they are looking at an industry's 'average' rate of profit, they may actually be observing something quite different.

We have already seen that there may be certain national industries that do not possess any regulating capitals. Consequently, the average rates of profit for

32 Obviously more efficient capitals would continue to be placed in a better position relative to less efficient capitals.

these incomplete industries will tend to be persistently below those of other national industries that do contain regulating capitals. In this case, once again, there will be very good reason to suggest that the observed low rates of return for these national capitals *will* tend to have a fairly restrictive influence on wage levels. Yet, if we do not pay careful attention to the distinction between these below average rates of return and the regulating rates of return for the world industry as a whole, we may jump to a number of incorrect conclusions. This would particularly tend to be the case if many of these inefficient national industries are also characterised by low levels of market concentration and low levels of capital intensity.

Although it may appear that these national industries are generally suffering from low levels of market concentration and a resulting lack of 'monopoly pricing power', the real cause of these low wage and profit rates would primarily be the lack of efficiency of these national capitals. Thus, not only do these local rates of profit provide a very inaccurate picture of the world industry as a whole, but they also give us very little insight into the underlying causes of these persistently low rates of return.

At the other end of the spectrum, we must also remember that certain industries that are either directly or indirectly connected to the use of natural resources may result in 'average' industry rates of profit that are persistently above those of the regulating conditions of production.³³ In these situations where above-average rates of profit are essentially secured by the appropriation of differential rents, unusually high rates of profit may provide the potential basis for above-average wage rates. Once again, however, we would have to be very clear about which specific rates of profit we were actually observing, particularly if we are attempting to suggest that these above-average wage rates are the result of monopoly power.

In order to look for evidence of the lack of competition within Marx's analysis, we would have to pay close attention to the rates of profit for the *regulating conditions of production* within each industry. And, in many of these cases where differential rents are present, the regulating rates of profit will tend to be *below* the 'average' rates within the industry as a whole.³⁴ Thus, while the regulating capitals may be tending to achieve the competitive rate of return relative to other *regulating* capitals throughout the economy, the above-average rates of return for the industry as a whole would appear to suggest that

33 As already explained in chapter 5, the regulating conditions of production within mining and agriculture are determined by the regulating capitals on the marginal land.

34 See chapter 5, the section titled 'Marx's Concept of Regulating Capitals'.

monopoly power is a key factor here. Hence, differential rents that have strict determinations would be confused with 'monopoly profits'.

Finally, in the case of cross-sectional studies that simply look at the individual firm's profit rate, we can also anticipate a number of serious problems. As discussed in great detail in the first section of this chapter, there is the very important case of individual capitals that are less efficient and hence less profitable than the regulating conditions of production. In these cases, we would obviously have good reason to presume that wage rates may be significantly restricted within these firms over prolonged periods of time. On the other hand, there may be individual firms within other industries that are also enduring similarly low profit rates merely because the industry as a whole is in the midst of a downward phase in its profit cycle. In this case, low profit rates would have a much weaker effect on wage rates.

Of course, the final reason for exercising caution concerning any systematic relation between high industry profit rates and high wage rates is that workers must generally organise (either formally or informally) and fight for these wage increases. Although above-average rates of profit may sometimes lay the potential basis for above-average wage rates, this potential will not be realised unless workers collectively struggle to achieve them.

For all of the above reasons, empirical analyses of the relation between profit rates and wage rates must be done carefully. Moreover, this care must be greatly increased when conducting cross-sectional studies over relatively short periods of time. Unfortunately, the great majority of existing studies have been conducted with the basic premises of the neoclassical theory of competition firmly in mind. Thus, not only have these studies generally tended to ignore the above analytical distinctions between regulating, average, and individual rates of profit, but the vast majority of these studies have also been conducted over very short periods of time. Perhaps most disturbing, the great majority of these researchers have not been even remotely aware of the serious problems that may arise from these shortcomings.³⁵

35 As noted in the recently added appendix to Chapter 5, empirical work studying the dynamic equalisation of regulating rates of profit has advanced significantly since this book was first published. However, this work has not yet been linked to the issue of wage differentials.

Conclusion

The main purpose of this book has been to show that Marx's distinctive analysis of capitalist accumulation and competition provides the foundation for a powerful, alternative explanation for persistent wage inequality within the modern capitalist economy. While radical, institutional, and neoclassical economists have all generally assumed that wage differentials among similar workers will only tend to persist when competition in the capital and/or labour markets is seriously restricted, we have shown that many well-known patterns of inter- and intra-industry wage differentials are actually quite consistent with both high levels of capitalist competition and substantial degrees of labour mobility. In the cases of inefficient firms and dying industries, we have also shown that the pressures of capitalist competition can often militate against the equalisation of wage rates.

One of the most important theoretical strengths of this more classical Marxian approach is that we have been able to incorporate a number of critical institutionalist insights concerning the impact of unions and product markets on wage determination *while remaining within a highly competitive framework*. Thus, unlike previous radical and institutional arguments, our analysis is no longer vulnerable to the traditional neoclassical critique of 'indeterminacy'. Equally important, this framework provides unorthodox labour economists with a robust alternative to efficiency wage arguments that tend to downplay the importance of collective worker resistance and unions in the final patterning of the wage structure.

As we now come to the end of our analytical journey, it should also be quite clear that the social policy implications of our argument are diametrically opposed to traditional neoclassical economics. Contrary to the claims of Milton Friedman and other free market ideologues who are now triumphantly celebrating the victory of capitalism within Eastern Europe, the relentless forces of capitalist competition are anything but the protectors of labour. As Marx argued over one hundred years ago, the combined dynamics of competition, technical change, and the ever present reserve army work tirelessly *against* the wages and working conditions of the labouring class. Thus, if working people are to hold the line against these relentless forces and eventually achieve improvements in their standard of living, collective worker organisation and high levels of state intervention are absolutely necessary. Last, in contrast to more progressive neoclassical economists who primarily support unions as a necessary counterbalance to the excesses of corporate monopoly, our argument suggests that unions are imperative not because the forces of competition

are sometimes restricted, but because they almost always work far too well in the service of capital.

In the first two sections of this final chapter, we briefly summarise all of the potential patterns of differential wage rates that can be anticipated from Marx's dynamic analysis of capitalist competition and the aggregate labour market. The next two sections compare our distinctive results to both orthodox and radical arguments. After a brief discussion of implications for future empirical work, we then conclude by presenting important extensions of our argument for the development of viable trade union strategies in an increasingly competitive environment.

Capitalist Competition and Differential Wage Rates: Abundant Possibilities for Sustained Inequality

Even before we allowed for the systematic appearance of differential profit rates between industries, our analysis of the competitive limits to rising wage rates within regulating capitals uncovered a number of important foundations for inter-industry wage differentiation (see chapter 6). As institutionalists have always suggested, industries with relatively high levels of capital intensity do generally possess a number of important advantages that enable them to more easily incorporate higher wage rates in their cost structures. Yet, contrary to these previous arguments, very few of these advantages stem from monopoly power.

As a direct result of the equalisation of profit rates between industries, we pointed out that regulating capitals within capital-intensive industries require relatively high profit margins per unit labour requirement in order to achieve the *competitive* rate of return. Consequently, these capitals can more easily absorb immediate increases in wages during the transition period when relative prices have not yet fully adjusted to these rising labour costs.

When high levels of capital intensity are further combined with high levels of fixed capital investment and large, concentrated workforces, our analysis of the 'costs of obstruction' went on to suggest that many of these industries will often find it more cost-effective to allow wage rates to rise within certain competitive limits. When faced with a militant and effectively organised workforce, the potential costs of obstructing wage increases within these industries can be quite significant. On the other hand, because wages tend to be a small percentage of total costs, the alternative costs of conceding to union wage demands are relatively small.

Finally, our discussion of the second limit to rising wage rates which is determined by the costs of subdominant capitals suggested that the overall

range of wage variation within any particular industry will also tend to vary with the level of capital intensity. Once again, because labour costs are a smaller percentage of total costs, regulating capitals within capital-intensive industries can generally afford to absorb higher wage increases relative to their less efficient competitors without jeopardising their position as the low-cost producers within the industry.

As we moved on to the analysis of *non-regulating capitals* in chapter 7, we discovered other important foundations for both intra- and inter-industry wage differentials. Once we allowed for the competitive reality of differential conditions of productivity and profitability within each industry, it became clear that less efficient capitals generally face more restrictive limits to rising wage rates relative to regulating capitals. As a result of higher unit costs, higher unit labour requirements, and a higher share of labour costs in total unit costs, a given hourly wage increase will immediately have far more serious effects on the profit margins and profit rates of these less efficient firms. (This is particularly true in the case of non-regulating capitals, which are doubly disadvantaged by their location in labour-intensive sectors of the economy). In the longer run, these non-regulating capitals are further disadvantaged by their inability to regulate their industry's price of production. Thus, if wage rates should merely rise within these capitals (and not within the industry as a whole), these more serious effects on profit rates will be permanent.

Of course, at the other end of the wage spectrum, we also showed that non-regulating capitals that possess a unique competitive advantage vis-à-vis regulating capitals can maintain above-average wage and profit rates for sustained periods of time.

Although the implications of our analysis of non-regulating capitals for *intra-industry* wage differentials were immediately obvious, we eventually discovered that important patterns of *inter-industry* wage differentiation can also be anticipated by paying careful attention to the international location of regulating capitals. Within a particular capitalist nation, national industries can often exist that do not contain the regulating conditions of production within the world industry as a whole. Hence, these national industries essentially constitute less efficient subsets of the industry proper. In these situations, the entire national industry is then placed in the disadvantaged position of less efficient capitals, which was just summarised. Thus, as we compare profit rates across different industries within any particular national economy, those sectors that contain regulating capitals are likely to enjoy higher profit rates. Moreover, if these capitals are also strongly unionised, they will probably be paying higher wage rates as well.

At the end of chapter 7, we finally relaxed our assumption concerning the immediate equalisation of profit rates across regulating capitals in different industries, and we discovered that Marx's analysis of the tendential regulation of inter-industry profit rates provides us with two additional foundations for wage differentiation. As a result of the real processes of capital mobility and the equalisation of profit rates between industries, industries with relatively high fixed capital investments will tend to experience prolonged cycles of fat and lean years that can require ten to fifteen years to complete. Within sustained periods of above-average rates of profit, organised workers may therefore be able to use these opportunities to achieve substantial increases in their wage rates. On the other hand, succeeding periods of below average rates of profit will have the opposite effects.

Similarly, the presence of substantial amounts of fixed capital also suggests that dying industries will often attempt to live on for considerable periods of time in order to depreciate their unwieldy capital investments. Moreover, a key factor enhancing the staying power of these declining sectors will be their ability to prop up their ailing profit rates by paying substandard wages and cranking up the intensity of labour. Thus, not only are there numerous possibilities for above-average wage rates, but prolonged periods of below normal wage and profit rates will also tend to occur as a direct result of capitalist competition.

As we pointed out in chapter 6, even if workers are very evenly organised throughout the capitalist economy, different technical conditions of production and the constant generation of differential profit rates between and within industries suggests that certain patterns of inter- and intra-industry wage differentiation are likely to arise. As we have just seen, the realities of ongoing capitalist competition create an elaborate web of differential constraints on wage rates that have little to do with the skill and quality of individual workers. Equally important, the constant presence of the reserve army of labour conveniently ensures that many of these highly labour-intensive industries, inefficient firms, and even dying industries will find adequate supplies of desperate workers who have little alternative but to work at these substandard wage rates.

Once we allowed for uneven levels of worker organisation, however, we arrived at a critical set of political determinations that will also tend to have an important impact on the final patterning of wage rates. As noted in chapter 6, when the political and institutional conditions of a particular capitalist nation are such that it is primarily those industries that can most easily absorb local wage increases that are also the most effectively organised, the actual patterns of wage differentiation will tend to be pushed to the maximum range of variation allowed within the confines of ongoing capitalist competition.

Because this scenario is unfortunately a good first approximation of the economic and political realities that existed in the US from the end of WWII through the 1980s, we were eventually able to arrive at many of the well-known patterns of inter-industry wage variation within that period. As numerous empirical studies within the manufacturing sector have repeatedly shown, there is a strong correlation between above-average wage rates and 'core' sectors of the economy which are generally characterised by high levels of capital intensity, large masses of fixed capital investment, large workforces, and relatively high levels of union organisation.¹ And, of course, many of these core sectors (although not all of them) have also experienced prolonged periods of above-average rates of profit.

Unlike radical and institutional discussions of these empirical patterns, however, we were able to arrive at these same results without requiring any assumptions concerning monopoly pricing power, monopoly capitalism, or the dual economy. In fact, at every level of our long analytical journey to these concrete patterns of wage differentials, several sets of competitive limits were strictly observed.

Because we derived our analysis of the differential limits to rising wage rates within Marx's analysis of capitalist competition, we discovered that the differential ability of certain capitals to pay higher wage rates may have very little to do with the presence of monopoly profits. As noted previously, relatively high profit margins per unit labour requirement (or a 'high value productivity of labour') within capital-intensive sectors is an expected result of capitalist competition between industries. Moreover, similar competitive explanations can be developed for numerous patterns of differential profit rates within and between industries (see chapter 5).

Perhaps most important, our analysis of the dynamics of 'regulating capitals' suggests that the ability to incorporate higher wage costs into an industry's price structure also has little to do with monopoly pricing power. On the contrary, the long-run ability to pass on local wage increases within any industry is a direct result of the regulating capital's ability to maintain its status as the *competitive* standard for the industry as a whole.

Given this competitive framework, we therefore argued that inter- and intra-industry wage differentials that may clearly develop within the confines of capitalist competition must nevertheless face three important sets of constraints:

1 Garbarino 1950; Bowen 1960; Masters 1969; Dalton and Ford 1978; Howell 1982, 1989; Reich 1984; Hodson 1986; and Dickens and Katz 1987.

1. The limits of immediate profitability, which are determined by the profit margins of the regulating capitals experiencing the wage increase.
2. The potentially more narrow limits, which are determined by the unit costs of the subdominant capitals.
3. The internal bargaining limits, which are determined by the potential costs of obstructing the wage increase.

It is also important to remember that although wage rates within certain sectors of the economy can potentially rise well above wage levels in other sectors for substantial periods of time, there are important long-term competitive pressures that will eventually bear down on these growing wage gaps. As in the tendential regulation of profit rates (see chapter 5), the regulation of inter-industry wage rates often requires significant periods of real time as a result of substantial masses of fixed capital investment. Thus, although heavy industries like steel and auto, which have been persistently forced to pay above-average wage rates, may *eventually* attempt to relocate to lower wage areas, the immediate mobility of capital often entails extensive fixed capital costs. But, as these fixed capital costs are depreciated over time, the costs of mobility are eventually reduced. And, as the wage differential between the current high-wage workforce and the potential low-wage workforce continues to grow, the incentive for capital to relocate is significantly enhanced. Thus, unless these low-wage sectors are effectively organised and their wage rates are forced upward, wages within the capital-intensive sectors will ultimately be forced downward. As we have pointed out on several occasions, capital mobility and labour mobility cannot be viewed as distinct and independent processes. They are inextricably bound together within the context of capitalist competition.

Capitalist Accumulation and the Aggregate Labour Market: Further Sources of Wage Variation

In the beginning of chapter 4, we pointed out that the constant re-differentiation of the working class into various sectors of the active and reserve armies of labour has been an integral component of the general tendencies of capitalist accumulation since the industrial revolution. Thus, not only can we anticipate certain patterns of persistent wage differentials without resorting to monopoly arguments, but we can also develop an analysis of the ongoing reproduction of chronic pools of low-wage workers (i.e. a 'secondary labour market'), without arguing that capitalism's long-run tendency to homogenise the working class has now been superseded by a more modern process of

'labour market segmentation'. In fact, a careful reading of Mill and Marx reveals that large pools of desperate workers who are constantly forced to endure both the lowest wage rates and the most deplorable conditions of employment have been an enduring legacy of the capitalist labour market.

When we went on to investigate the implications of persistent underemployment for the analysis of labour mobility and the equalisation of wage rates, we discovered that a number of other distinctive arguments can be derived from Marx's analysis of the aggregate labour market. Contrary to orthodox wage theory, serious restrictions in the mobility of labour are not a necessary requirement for the persistence of substantial wage differentials across different sectors of the capitalist economy. For even if we assume that many low-wage workers are eventually able to migrate to high-wage sectors, in the absence of widespread union organisation, low-wage firms will continue to find an ample supply of cheap labour within the reserve army of labour. Thus, regardless of how hard these workers must work, or how dangerous and unhealthy their jobs may be, there is very little pressure for wage rates to rise at the low end of the 'free' labour market.

While the dynamics of the aggregate labour market clearly create the basis for wage differentiation, it is once again important to remember that these same forces also provide critical limits to that differentiation. As long as there are significant numbers of unemployed workers who are in desperate need of employment, organised workers will face important limits to their ability to raise their wage rates and they must be extremely well organised when they attempt to raise the stakes at the bargaining table. In the early nineties, Caterpillar Tractor's routing of the UAW's six-month strike by threatening to hire thousands of 'permanent replacements' stood as a grim reminder of how serious these downward pressures can become when the labour movement is extremely weak.²

Comparing Our Results to Neoclassical Economics

There is little doubt that the central foundations of neoclassical economics provide conservative ideologues with a number of powerful arguments in support of the unfettered capitalist labour market. Within the idealized world of perfect competition, perfect information, and a constant tendency toward full employment, all those who are seriously looking for work should be able to

2 See *New York Times*, 14 April 1992.

find gainful employment without any assistance from the state. Moreover, the dual processes of employer competition and free labour mobility ensure that workers will be properly compensated for their efforts. Thus, firms that require their employees to work under particularly disagreeable circumstances must pay commensurately higher wage rates in order to equitably compensate these workers for their relative discomfort.

Of course, within this perfectly equitable world, there is little need for state intervention and even less call for unions. At their best, unions merely duplicate the optimum results of the competitive labour market. At their worst, they create inequality and inefficiency by forcing wage rates beyond the proper levels proscribed by competition. In this case, the excessive wage rates of unionised workers are purchased at the expense of declining employment within the unionised sector and lower wage rates in nonunion sectors. Thus, it is unions that may create serious inequities among workers, not the unbridled mechanisms of the labour market.

Although the assumptions of perfect competition and general equilibrium are quite useful in the ideological defence of the free market system, we have argued throughout this book that this idealised framework cannot begin to capture the actual dynamics of capitalist competition or the real processes of competitive wage determination. Indeed, when one looks at the tremendous competitive struggles that are currently raging in heavy industries like auto and steel, it is hard to imagine a more inappropriate starting place than the framework of perfect/imperfect competition, which suggests that these kinds of industries should be extremely *uncompetitive*! To understand the dynamics of real capitalist competition requires a competitive theoretical framework that can incorporate the realities of large masses of fixed capital, high degrees of uncertainty, and vigorous struggles over market shares from the very beginning. Yet, as numerous critics have repeatedly noted, these essential realities of the capitalist economy are alien to the basic premises of neoclassical economics. Of course, when we go on to examine the predictive power of orthodox wage theory, the constant presence of substantial wage differentials among workers of comparable skill in virtually every capitalist economy also speaks volumes about the inadequacies of orthodox theory.

Within this book, we have shown that it is possible to develop a robust theory of competitive wage determination that can incorporate the essential realities of capitalist competition and explain many of these inequitable patterns of wage differentiation. Yet the ideological cost of building our theory on these far more realistic foundations has been a much darker view of the underlying mechanisms of the capitalist labour market. Equally significant, although our entire argument has been constructed within the determinate confines of

ongoing capitalist competition and accumulation, we have shown that there is substantial room for unions to have a significant and largely equitable effect on wage determination at both the aggregate and inter-industry levels. Thus, our results are diametrically opposed to neoclassical economics on every level.

As noted above, one of the most striking differences between these two approaches is that within the classical Marxist framework, rapid productivity growth and vigorous levels of capitalist competition do not generally have a positive effect on the wages and working conditions of the working class. On the contrary, the free and unregulated forces of accumulation and competition tend to have disastrous consequences for the working class unless workers are able to organise some form of collective resistance to capital's continuing onslaught.

In sharp contrast to neoclassical theory, workers' collective struggles to defend and improve their standard of living are therefore not only morally justified on the basis of 'equity', they are absolutely necessary in order to ensure that real wage rates will not be continually forced down to subsistence levels. Thus, within the classical Marxian framework, the ongoing class struggle over wage rates cannot even remotely be considered to be 'anticompetitive' or socially counterproductive. On the contrary, the dynamic of worker resistance is a central component of the Marxian theory of competitive wage determination. Moreover, the analysis of the complex dialectic between the forces of capitalist competition and accumulation on the one hand, and the ongoing class struggle on the other, is a central theme within Marxian political economy as a whole. In order to allow for this dialectic, however, the classical Marxist notions of tendential regulation and systematic variation within limits that are so foreign to neoclassical economics are essential.

Within our analysis of the aggregate labour market, we argued that the dynamics of capitalist accumulation will systematically tend to regulate movements in the general wage level. But, once again, the nature and results of this process of tendential regulation are quite distinct from those that are anticipated within orthodox theory. Although increases in the productivity of labour which are related to the production of workers' means of subsistence do provide important general limits to increases in the real wage level, these increases are not automatically determined by movements in the productivity of labour (marginal or otherwise). Indeed, in periods like the past three decades when worker resistance is extremely weak, the constant pressures of competition and the reserve army of labour will often allow increases in the productivity of labour to be accompanied by *declining real wages*.

During periods of healthy accumulation, however, solidly organised workers can effectively struggle to achieve steady increases in their real wage rates. Nev-

ertheless, the dynamics of capitalist accumulation will normally ensure that these rising wages will fail to keep pace with increases in labour productivity. Thus, although worker organisation plays a central role in the final determination of the wage level, the regulating dynamics of the capitalist system will ensure that the rate of exploitation (or the capitalists' share of the *workers'* net output) continues to rise (see chapter 3). Hence, at the level of the aggregate labour market, the immediate linkages between labour productivity and the general wage level that are anticipated within the neoclassical world of comparative statics and marginal productivity theory are unequivocally shattered within Marx's dynamic analysis of capitalist accumulation. So, too, are the neo-classical claims of perfect equity.

Once we moved on to our discussion of wage differentials and capitalist competition, we again showed that the establishment of highly determinate limits to inter- and intra-industry wage variation does not preclude the possibility for class struggle to have a very significant role in the process of competitive wage determination. Indeed, we have argued that workers' collective struggles to raise their wage rates play a central role in the final patterning of the *competitive* wage structure.

Perhaps most surprising, within normal periods of market growth and regardless of any changes in an industry's productivity level, we have shown that well-organised unions can raise wages within the regulating capitals of any industry without causing that industry's actual level of employment to decline. Thus, although uneven worker organisation across different industries will obviously cause inter-industry wage differentials to grow as union wage rates are pushed upward, the above neoclassical argument, which suggests that union wage increases normally create overemployment and declining wage rates in nonunion sectors, is largely without foundation. In fact, the uneven dynamics of technical change and the continual reproduction of the reserve army of labour strongly suggest that the periodic flooding of labour markets and the subsequent creation of large pools of low-wage workers is far more likely to be the joint product of capitalist competition and the general laws of capitalist accumulation (see chapter 4, the section on Marx's theory of wage differentials).

Finally, in relation to recently developed efficiency wage theories, we would argue that the theoretical framework developed in this book is superior on several counts. Unlike efficiency wage theories, our analysis of competitive wage determination does not primarily rely on highly indeterminate arguments based on monopoly power and rent sharing in order to explain the persistence of above-average wage rates in core sectors of the economy. Moreover, by recognising the existence of exploitation and focusing on collective forms of worker

resistance (rather than on conflicting utility preferences and the problems of individual 'shirking'), our discussion provides a far more realistic analysis of the dynamics of class struggle and capitalist control within the labour process. It is high time for neoclassical economists of all persuasions to finally recognise, in the face of overwhelming evidence, that unions can and do have an important effect on inter-industry wage rates. To suggest, for example, that unionised auto workers on an assembly line are more highly paid than most unorganised secretaries and nurses because auto assembly work is more difficult to monitor (and/or turnover costs are more costly because of lengthy on-the-job training) verges on the absurd. To further suggest that high efficiency wage rates are the underlying cause of chronic underemployment defies the painful history of capitalist development ever since the industrial revolution. As Marx accurately pointed out in the 1860s, within the world of deskilling, machine pacing, and constant unemployment due to labour displacing technology, capital has little reason to raise wage rates in order to motivate workers. Quite the contrary, before the working class began to organise on a large scale, both the length of the work day and labour intensity were brutally increased at the same time that hourly wage rates were *decreased*.³

Comparing Our Results to Radical Economics

Although we have consistently argued throughout this volume that class struggle and different levels of worker organisation are absolutely critical to the determination of both the general wage level and various patterns of wage differentiation, our discussion has nonetheless maintained that the actions of both labour and capital remain fundamentally constrained by the laws of competition and accumulation. Hence, while we have clearly attempted to liberate the potentiality of workers' collective action from the far too narrow constraints of orthodox economics, this work also poses a partial critique of many radical and Marxist economists who have tended to argue that the class struggle is the principal and overriding determinant within the wage determination process.

3 In the more contemporary period we have seen similar dynamics in developing countries like China and Bangladesh where their respective labour movements were initially quite weak and protective legislation has been largely nonexistent. Fortunately, wages in China have begun to rise as Chinese workers are beginning to fight back. For a good introduction to recent labor struggles in China, see Hao Ren, *China on Strike*. Haymarket Books, 2016.

In *Segmented Work, Divided Workers*, Gordon, Edwards, and Reich state that their historical explanation of labour market segmentation is part of a recent school of Marxist thought that has attempted to feature 'the relative autonomy of political and ideological forces', and an 'emphasis on human agency rather than abstract laws in historical change'. By placing greater emphasis on these subjective factors, these writers claim that they are attempting to correct for the 'mechanical determinism' that has often been a serious weakness within more traditional Marxist analyses.⁴ Of course, in doing so they are also implying that when analytical emphasis is placed on the 'abstract laws' of competition and accumulation, the space for human agency tends to be greatly underestimated.

One of the most interesting results of our very different analysis of capitalist competition and the ongoing differentiation of the working class is that we have clearly shown that a systematic analysis of the determinate limits that are generated by the forces of competition and accumulation does not at all imply that the significance of political factors is necessarily diminished. More important, this work strongly suggests that the high degrees of indeterminacy within many of these radical arguments actually work to obscure both the real parameters and the potentialities of workers' struggles. Indeed, within certain circumstances, our more determinate analysis argues that collective worker organisation can actually have a far greater impact on the final patterning of inter-industry wage rates. Thus, what is really at stake here is not necessarily the overall scope of human agency within these different theoretical approaches, but the best way to analytically grasp these complex processes. Depending on which analytical path we take, however, our assessment of what *both* capital and labour can and cannot expect to accomplish within the confines of the capitalist mode of production will tend to be quite different.

Within our discussion of movements in the general wage level in chapter 3, we argued that the underestimation of the general dynamics of capitalist accumulation within the aggregate labour market has often led class struggle theorists (segmentationists included) to greatly *overestimate* the power of workers to control long-run movements in the aggregate wage level. Thus, within most wage-profit-squeeze arguments of capitalist crisis, it is generally suggested that workers periodically possess the power to precipitate serious economic crises all on their own by persistently forcing wage rates well beyond the limits of capitalist profitability. Even more curious, these arguments have sometimes been advanced as the primary explanation for the prolonged period of economic

4 Gordon, Edwards and Reich 1982, p. 21.

crisis that began in the United States in the late 1960s. This at a time when the US labour movement was not only far weaker than many European labour movements, but when US unions had already been suffering from significant declines in private sector unionisation for over a decade!⁵

On the other hand, many of these same economists also claim that there is very little that organised labour can do to raise the wage rates of large numbers of low-wage workers within 'competitive' sectors of the modern capitalist economy. This curious tendency to *underestimate* the dimensions of workers' power is, in turn, a direct product of the segmentationists' continuing inability to establish determinate competitive limits to the monopoly pricing power and divide and conquer machinations of 'monopoly capitalists'.

By developing an understanding of how the dynamics of capitalist accumulation and competition play a key role in the regulation of wages, prices, and profits throughout all sectors of the modern economy, we have argued that the real dimensions of workers' power are actually quite the opposite. Although our analysis of capitalist competition suggests that effective worker organisation can do a great deal to improve the wages and conditions of many low-wage workers, our analysis of the forces of capitalist accumulation implies that it is highly unlikely for unions to achieve the kind of sustained leverage that would be required in order to precipitate a full-blown crisis of capitalist accumulation. (Of course, this is barring the outbreak of a massive worker upheaval that threatens the very existence of the system itself).

Once having established that the opposing logics of these contrasting frameworks present very different scenarios of what workers can and cannot accomplish in terms of wage rates, we must try to assess which of these arguments has more explanatory power when confronting the real patterns of wage differentiation within the modern capitalist economy. We have already shown that the classical Marxian framework can directly anticipate many of the well-known patterns of inter- and intra-industry wage differentiation without relying on the indeterminate arguments of monopoly capital or a dual economy. Equally important, we have shown that our approach allows us to resolve a number of critical anomalies that have continually plagued both institutional and radical explanations of the modern wage structure.

As noted in chapter 2, arguments based on the dual economy and monopoly pricing power have had great difficulty explaining how unions have somehow managed to force the development of 'primary' labour market conditions in 'peripheral' industries that were supposedly too unstable, too unprofitable, or

5 Goldfield 1987.

too competitive to absorb them. Yet, because our analysis of an industry's ability to pay higher wage rates has very little to do with monopoly pricing power, we have argued that workers within the *regulating capitals of any industry* (concentrated or unconcentrated) will be able to raise their wage rates once they are effectively organised. Although various structural factors (i.e. low capital intensity, large numbers of firms, and easy entry and exit) may certainly make it more difficult for workers to maintain effective levels of union organisation within many of these 'competitive' industries, it is not the level of competition within these sectors that is preventing these industries from eventually incorporating higher wage rates into their cost structures. Moreover, given that levels of unionisation in the United States are among the lowest in the industrialised world, there certainly appears to be far more room for broader levels of union organisation.

At the end of chapter 2, we also saw that related anomalies have recently appeared when labour economists have attempted to apply the theory of the dual economy and segmented labour markets to Western Europe.⁶ Given that many of the economies within Western Europe must also be classified as 'dual economies' according to LMS criteria, similar patterns of segmented labour markets should have also appeared. Yet, not only are the patterns of segmentation and differentiation within the European working class quite diverse from nation to nation, but these patterns are often in direct opposition to arguments that are based on the core/periphery distinction.

While a growing number of sociologists and economists have become increasingly dissatisfied with the role of the dual economy as the general analytical foundation for the discussion of wage determination and segmentation, very few have begun to question this framework as an adequate conception of capitalist competition within the modern economy. Thus, as a result of the absence of a viable alternative theory of competition, this growing disenchantment with dualism has forced many writers to rely primarily on case studies approaches to segmented labour markets. As noted previously, this has inadvertently moved alternative approaches even further away from establishing a general analysis of the wage differentiation process that can address these complex patterns within a determinate theory of competition and accumulation.

Once again, because our classical Marxian framework does not rely on the dual economy as the key basis for labour market segmentation, divergent patterns of wage differentiation across different capitalist countries no longer

6 Berger and Piore 1980; Wilkinson 1981; and Lever-Tracy 1984.

present a serious analytical problem. Moreover, because our analysis of competitive wage determination clearly allows political and institutional factors to play a critical role in the actual development of concrete wage patterns, we can easily arrive at these diverse patterns without being forced to give up the project of developing a systematic analysis of the forces of competition and accumulation. Thus, for example, although the dual economy model cannot easily explain why the relative wages of private service workers are far lower in the United States when compared to Germany and Japan, our analysis anticipates these results. As explained in chapter 6, countries like the United States that have some of the *lowest* levels of unionisation are also likely to exhibit some of the *highest* levels of wage inequality. Here we see yet another example of how the political dynamics of class struggle actually become richer in their explanatory power once a more systematic hierarchy of determinations is established.

Continuing our discussion of troubling inconsistencies that have been generated by heavy reliance on 'the dual economy', recent developments in the world economy have raised serious questions about the generally accepted wisdom concerning the eternally high profit rates of core firms within the modern monopoly sector. Indeed, sharply declining profit rates and intensifying international competition within heavy industrial sectors such as auto and steel have raised very serious doubts concerning the long-standing assumptions of impenetrable 'barriers to entry' surrounding many of these bastions of monopoly power. Similarly, we have also pointed out that the assumption of immediate cost-plus markups and systematic price collusion within core industries has made it difficult for segmentationists to explain why these core firms would ever seriously contest worker demands for higher wage rates. And yet, these industries were continually characterised by numerous labour disputes throughout the postwar period up until the 1980s.

Because our argument does not rely on impenetrable barriers to entry in order to explain the above-average profit rates of many core firms, their eventual demise is far less problematic. Using Marx's analysis of regulating capitals, we have argued that these higher rates of return may have been primarily due to the regulating status of many of these US capitals in the immediate postwar period. But, as other more efficient capitals began to arise outside of the United States, declining profit rates were partly caused by the loss of their regulating positions within their respective world industries. Pertaining to the issue of core industry resistance to rising wage rates, our analysis of rising wage rates within regulating capitals also suggests that even capital-intensive industries are often required to endure transitional periods where profitability is reduced until relative prices have adjusted to accommodate these rising labour costs.

Thus, the periodic resistance to union wage increases within these industries is no longer difficult to understand.

Finally, perhaps one of the most critical strengths of our alternative framework relative to both institutionalist and radical arguments concerns the issue of wage differentials that are largely the result of race and gender discrimination. As in the case of wage differentials in general, orthodox economics argues that the pressures of capitalist competition should eliminate discriminatory wage differentials that do not reflect real differences in individual productivity. Accepting this competitive logic, alternative economists have therefore generally argued that the persistence of discrimination is primarily due to the lack of effective competition in both the capital and labour markets. Within our argument, however, we have shown that substantial inter- and intra-industry wage differentials can generally persist within highly competitive economies. Thus, it should now also be possible to explain how differentials between black and white workers (and male and female workers) can also persist under the same competitive pressures.

Throughout this book, we have maintained that competitive pressure to lower labour costs by gaining access to cheaper labour supplies is an ongoing dynamic that continually takes place regardless of whether the potential low-wage workforce is black, white, male, female, native born or immigrant. Nevertheless, our analysis of the costs of obstruction and the dual processes of capital and labour mobility also suggests that gaining access to these low-wage workers will often entail substantial costs – particularly when highly capital-intensive firms are attempting to use this labour mobility to replace their existing workforce or lower the overall wage level. Thus, we have essentially been able to explain why wage differentials among similarly productive workers (of any colour or gender) can persist for prolonged periods of time despite the ongoing processes of competition and the mobility of labour.

In order to go on to explain the more particular and more serious problems of wage differentials that are further aggravated by race and gender discrimination, we would have to develop a more concrete discussion of the historical and institutional factors that have largely forced women and people of colour into peripheral positions within the labour market. Here again, however, we would have to be careful to analyse more than just the divide and conquer machinations of capital. As I and many other writers have argued, we would also want to pay close attention to the activities of white workers and their unions within different historical settings. And finally, we would want to develop a systematic analysis of how the ongoing forces of competition and accumulation generate important constraints on the actions and prejudices of both capital and labour. Although it may be extremely convenient for capital as a whole to force

women and people of colour to play a disproportionate role within the reserve army of labour, the ongoing forces of capitalist competition and accumulation often place strict limits on the class-wide designs of capital. As the civil rights movement of the 1960s also demonstrated, so too do the costs of massive social disruption.

Implications for Empirical Research

In order to further assess the relative strengths of our classical Marxian analysis of competitive wage determination, more empirical work needs to be done. Within this book we have suggested that there are a number of important structural variables that should play a significant role in the patterning of a particular nation's inter-industry wage structure. Similar to several other empirical studies, the following structural factors would be important to consider:

- level of capital intensity (K/L)
- level of fixed capital equipment
- share of wage costs in total unit costs
- size of workforce within average plants in the industry
- level of unionisation across the industry as a whole

Following Levinson's suggestion, we would further anticipate that certain spatial and regional characteristics of various industries may also help to facilitate or retard effective union organisation. Thus, the number of regulating capitals within each industry, the extent of regional and/or national concentration, and various other factors that may affect both the ease of nonunion entry and the ease of capital flight may also be significant. As studies by Masters,⁷ Hodson,⁸ and Dickens and Katz,⁹ have already shown, we suspect that once the above structural variables have been properly accounted for, market concentration in and of itself would no longer be a significant factor within our regressions.

Although we have developed a number of theoretical arguments to suggest that the above variables should provide a good foundation for the analysis of overall patterns of wage variation, the statistical analysis of inter- and intra-industry wage differentials presents a number of important problems. In addi-

7 Masters 1969.

8 Hodson 1986.

9 Dickens and Katz 1987.

tion to the well-known problems of multicollinearity and the difficulty of measuring the direct and indirect effects of unionisation due to spillover effects,¹⁰ our own discussion presents several additional reasons for exercising a good degree of caution when attempting to assess the results of regression analysis.

The first concern pertains to the role of individual skill differentials within competitive wage determination. Within the classical Marxian analysis of competitive wage determination, the differential costs of production for different levels of skill are an important component of the different values of labour power. Hence, *real* differentials in skill levels should provide different centres of gravity for fluctuations in the actual wage rates of different groups of workers. Yet, when we review the evidence of inter-industry correlations between skill levels and wage rates, it often appears that skill levels have little to do with wage determination. In testing for the Marxian argument, however, it is important to remember that these centres of gravity for wage rates ultimately pertain to the economy as a whole. Thus, although both unskilled and skilled workers in 'core' industries may consistently receive higher wage rates relative to corresponding workers in other sectors, it may still be that the average wage levels of unskilled workers *throughout the economy* will display a lower centre of gravity relative to skilled workers.

Also relevant to the issue of skill differentials, Braverman's analysis of the labour process across different sectors of the modern capitalist economy has given us good reason to suspect that real skill differentials are probably far more narrow than what many statistical studies have tended to suggest. Thus, we would also want to exercise caution when attempting to develop accurate measurements of these skill differentials.¹¹

The second reason for caution regarding empirical studies concerns the notion of regulating capitals. As in the empirical analysis of differential profit rates across different industries, our analysis of differential wage rates argues that both the location of the regulating conditions of production and the correct identification of the national (or international) boundaries of each industry are critical factors that must be considered. Thus, access to fairly detailed information concerning different firms within each industry would be extremely important. Unfortunately, however, this type of firm data is difficult to obtain.

10 See Freeman and Medoff 1984 for a good discussion of many of these statistical problems. See also Dickens and Katz 1987.

11 Howell's 1982 dissertation has already developed a number of important steps in this direction.

Furthermore, because our analysis argues that specific types of union activity (i.e. those related to the ability to impose significant costs on regulating capitals) are the primary indicators of a union's ability to raise wage rates, it is also important to develop a good measure of the effectiveness of different union organisations across various firms and industries. Although the overall level of unionisation within a particular national industry is easy to obtain, this may not be an accurate indicator of the ability of unions to impose costs on capital for several reasons. First, in the case of world industries, the national level of unionisation suffers from many of the same problems that national measures of market concentration do; that is, an inadequate definition of the industry as a whole. This problem is seriously compounded by our need to measure the extent of unionisation within the *regulating* capitals within each industry.

Second, in order to more accurately assess the effectiveness of these unions in imposing significant costs, we would also need a way to measure the relative militancy and ongoing organising activity of these unions. Here, strike activity over the past three contract periods may be one good indicator of a union's ability to impose costs. Indicators of overall democracy and of the level of rank-and-file involvement would also be very helpful. Without periodic strikes and solid union organisation, which make various in-plant organising activities possible, it is difficult for unions to convince employers that there really is a serious threat of rising costs of obstruction at the bargaining table.

Finally, within our analysis, it is important to remember all of the reasons that we have already cited in chapter 7 for exercising caution concerning the assumed positive correlation between wage and profit rates. In certain cases, differentials in profit rates may provide an important basis for corresponding variations in wage rates. Nonetheless, it would be a mistake to assume that this will always be the case. Thus, it is important to assess the reasons for these variations in inter- and intra-industry profit rates. In order to do this, we would once again have to be careful to distinguish *which profits rates are actually being observed* (i.e. the average rate for the entire industry, the average rate of profit for a local subset of an industry, the regulating rate of profit, or merely the profit rates of individual firms).¹² We would also want to be sure to investigate the patterns of wage variation over fairly long periods of time. Within this long-run context, it would also be interesting to investigate whether or not the long-term movements of various industry wage rates tend to correspond with

12 As noted in the appendix to chapter 5, Anwar Shaikh (2016) and other researchers have recently developed a promising method for estimating the regulating rates of profit within various industries.

their respective industry's cycles of fat and lean years. Indeed, in the case of industries with above-average profit rates, it is quite possible that rising union wage rates may become part of the ongoing competitive process that works to force these profit rates downward.

Implications for the Contemporary Labour Movement¹³

As many labour analysts have pointed out, the US labour movement is currently facing a number of very serious problems.¹⁴ From our perspective, four of the most critical problems are the following: (1) an unprecedented decline in the levels of unionisation throughout the private sector; (2) a growing number of industries within both manufacturing and the service sector that are becoming increasingly characterised by poverty level wages; (3) increasing international competition and the growing international mobility of capital; and (4) the deepening secular crisis that began at the end of the prolonged postwar boom in the late 1960s.

Although virtually all progressive labour activists and economists would agree that US unions are in deep trouble, there is heated debate over which strategies to pursue for the renewal of the labour movement. In general, this debate has been largely defined by two opposing positions. Many national union leaders and almost all labour relations consultants argue that the labour movement's long-term survival within an increasingly competitive environment requires unions to move toward a more 'nonadversarial' type of unionism that allows for more management 'flexibility' and embraces notions of 'jointness' and 'team' production systems. The counterposition has tended to percolate from rank-and-file activists and a growing number of local union leaders who argue that unions must go back to the militant style of democratic, social unionism, which characterised many of the early CIO unions in the 1930s. Often termed the 'new directions trend' because of the key role of the New Directions movement in the UAW, Labour Notes activists argue that 'this new trend has arisen in the heat of resistance to concessions, support of key strikes, battles for union democracy, struggles for the rights of minority and women workers, drives to organise the unorganised, fights against plant closings, and fledgling campaigns of international solidarity'.¹⁵

13 For an updated discussion of the implications of my work for the labour movement, see the afterword to this edition.

14 Davis 1986; Craypo 1981; Kochan 1986; and Moody 1988.

15 This quote was taken from a Labour Notes pamphlet entitled 'Who Will Shape Our Future:

Because progressive labour economists have generally assumed that the past union wage gains within 'core' industries were largely dependent on monopoly pricing power, many of these economists have been hard pressed to provide union activists with a coherent alternative to the above corporatist calls for wage concessions and other forms of nonadversarial labour relations that are now supposedly required to 'beat the new competition'.¹⁶ Indeed, when union dissidents call for a return to militant adversarial unionism, they are frequently criticised for their unwillingness to confront the harsh new realities of global competition.¹⁷

Within the classical Marxian framework, the long-term solution to labour's problems clearly resides in the development of a *democratic* socialist system of production that can finally put an end to capital's relentless drive to maximise private profits regardless of the immense social costs. Within the confines of ongoing capitalist competition and accumulation, however, this book clearly suggests that there are a number of things that workers and their unions can collectively do to minimise the devastation of working people's lives that repeatedly results from the unbridled forces of the capitalist system. Indeed, this volume suggests that the most effective way to address all of the above problems within the US labour movement is ever wider levels of militant and democratic union organisation that can effectively take wages and working conditions *out of capitalist competition*. Perhaps most important, this revitalised labour movement must become an integral part of a truly international labour movement that is ready and willing to organise regulating capitals wherever they happen to locate their production facilities. In other words, contrary to many labour relations experts, this book suggests that an accurate understanding of the real dynamics of competitive wage determination actually lends strong support to many of the adversarial positions of the new directions movement.¹⁸

Labour's Two Trends'. This pamphlet was produced for a Labour Notes Conference on 'New Directions for Labour' that was held in Detroit, Michigan in spring 1989.

- 16 This problem is further compounded by left economists who have argued that one of the primary causes of the US economic crisis was a wage-profit-squeeze that was initiated in the late 1960s by workers who not only pushed for rapidly rising wage rates, but simultaneously resisted management attempts to increase labour productivity. See Bowles, Gordon and Weisskopf 1983, and Bluestone and Harrison 1990a.
- 17 For an example of this type of criticism of adversarial unionism, see Bluestone 1989.
- 18 For further elaboration on this point see Botwinick 1988.

Organising within Industries

In chapter 6, we argued that the effective union organisation of any industry requires that all of the regulating capitals must be organised. Clearly, if unions only manage to organise some of these capitals, those firms that are organised will not be able to incorporate higher wage costs within their industry's price of production. Thus, when faced with continued union pressure to raise wages above average levels within the industry, these capitals will lose their position as regulating capitals and may face serious competitive consequences.

Recent examples of this problem unfortunately abound within the United States as growing numbers of nonunion regulating capitals have been allowed to develop within the airlines, construction, mining, meat-packing, auto, tyre, and steel industries. As a result, unions within these industries are no longer able to establish industry-wide wage standards to which all key firms are forced to conform. The key point here is that the new element in many of these industries is not so much the presence of capitalist competition but the growing weakness of the labour movement that has allowed capital to break the process of pattern bargaining and draw wages and working conditions back into the competitive gauntlet. Moreover, although the increasing global mobility of capital and intensifying international competition have certainly played an important negative role in industries like auto and steel, this does not explain why unionisation rates in largely domestic industries like meat-packing have also experienced dramatic declines. Indeed, with respect to the meat-packing industry, our argument suggests that Jim Guyette was right on target when he pointed out that Hormel's newest Austin plant was precisely the place where the international union should have been taking a strong stand against concessions. When Guyette stated that concessions were 'going to have to stop at the most profitable company with the newest plant', he clearly understood what it meant to be working in one of the industry's key regulating capitals. Of course, he also understood that the longer term project was to mount a massive organising campaign to lock in all of the other key firms in the industry.

In addition to organising all of the key firms, our analysis also suggests that the only way that unions can ultimately convince their employers to concede to significant improvements in wages and working conditions is to have the potential ability to impose serious 'costs of obstruction' on their employers. Thus, as UAW dissidents repeatedly argued in the 1980s, and striking workers at Pittston and NYNEX effectively demonstrated in the 1990s, rank-and-file activism and militancy is imperative, and adversarial labour relations are unavoidable.

Organising across the US Economy

Contrary to many labour market segmentationists, we have repeatedly argued that the wages and working conditions within many of the growing low-wage sectors of the US economy can be substantially improved through union organisation – regardless of whether these industries are concentrated or unconcentrated. Although industries with a large number of firms may sometimes be more difficult to organise, low levels of market concentration do not present an inviolable barrier to higher wage rates.

In fact, once we pay less attention to the issue of monopoly power and focus more attention on various structural factors that may help to facilitate union organisation, there are a number of positive reasons to believe that much of the service sector is highly organisable. Indeed, within the world of international capital mobility, many unorganised workers in the service and retail sectors may actually be easier to organise relative to workers in some of the more traditional union sectors. Within service industries like healthcare, hotels and restaurants, and retail trade, capital mobility is either very unlikely or extremely difficult. Thus, just as in the case of steel and auto in the 1930s, these sectors are essentially captive audiences for union organisation.

As Kim Moody has interestingly pointed out, some of these nontraditional sectors like insurance, and wholesale and retail trade are also becoming fairly concentrated. Hence, a relatively small number of regulating capitals now represent a significant portion of the industry. In 1986, for example, almost one million out of 1.8 million workers in department stores were employed by Sears, J.C. Penney, and K-Mart.¹⁹ Furthermore, Moody also notes that the average number of employees working in a hospital is now significantly larger than in the average factory.²⁰

As labour begins to strategise about the organisation of wider sectors of the economy, however, it is once again important to remember that these organising drives will only be effective in the long-run if unions develop *massive coordinated campaigns that are designed to take on all of the regulating capitals in the industry*. Thus, our analysis of competitive wage determination also suggests that the growing tendency toward 'general unionism' within the United States whereby many unions are haphazardly reaching out to any potentially organisable workforce with little regard to developing systematic industry-wide strategies will not be terribly effective.

19 Of course, with the recent ascension of Wal-Mart, the levels of concentration in this industry have increased even further. By 2002, Moody noted that 'the top four supercenter chains accounted for 85 % of stores and 92 % of sales' (Moody 2007, p. 55).

20 Moody 1988, pp. 216–19.

On the brighter side, the SEIU's national 'Justice for Janitors' campaign, and in particular their 1990 organising victory over International Service Systems (ISS) in Los Angeles, represents a brilliant example of how secondary workers can be effectively organised with a comprehensive strategy that is designed to take on the regulating capitals of an industry. Indeed, as a result of militant rank-and-file involvement and extensive community support, some of the most vulnerable workers within the US labour force successfully took on the world's largest employer of contract services. Boston's 5,000-member Hotel Employees and Restaurant Employees Union (HERE) represents another inspiring example of the potential for highly effective union organisation within the service sector.²¹

In addition to mounting aggressive organising campaigns across many of these industries, however, the ultimate success of the labour movement in raising the poverty level wages of so many workers throughout the United States will also require the development of a classwide political strategy that can effectively fight to rebuild the public sector and bridge the glaring gaps that continue to grow between the employed and unemployed, men and women, and white workers and people of colour. Indeed, in the wake of a decade of systematic attempts by the Reagan and Bush administrations to pit various groups of working people against one another through welfare bashing and repeated attacks on affirmative action programmes, the need for a progressive working class perspective in American politics is paramount.

Thus, as in the 1930s, the labour movement must be very careful to avoid the pursuit of narrow short-run strategies that can seriously harm workers who have not been traditionally included within the folds of organised labour. In order to counteract a decade of welfare bashing, unions must lead the fight for decent jobs programmes, a higher minimum wage, affordable quality day care, mandatory parental leave, and substantial increases in desperately needed

21 For a brief discussion of both of these important union struggles as well as many other innovative organising activities within the United States, see La Botz 1991. See also Moody 1988 and Brecher and Costello 1990. In a recent survey of more than 189 union elections between 1986 and 1987, Kate Bronfenbrenner points out that unions have done 'much better in service sector industries such as healthcare (52% win rate) than in more traditional blue collar industries such as transportation (20%) and manufacturing (40%)'. She goes on to suggest, however, that 'unions are winning more elections in the service sector because the unions doing most of the organising in the service sector are doing a better job of organising and because the low-wage women and minority workers who dominate service sector employment are much more likely to vote for unions than their white male counterparts in manufacturing or transportation industries' (Bronfenbrenner 1992, p. 9).

social services for the poor. As an integral part of the fight for decent jobs for all, they must also reaffirm the importance of affirmative action programmes that have attempted to address chronic discrimination against women and people of colour.

Another component of the struggle to reduce inequalities within the labour market involves the extension of protective legislation that currently regulates hours and working conditions within manufacturing to all sectors of the economy. Although the corporate representatives of low-wage industries that are not currently covered under existing legislation will undoubtedly claim that these substandard wages and conditions are necessary in order to allow them to “survive,” our analysis suggests that most of these industries have the ability to incorporate higher cost structures if these conditions are forced upon all capitals.²²

Finally, as unions fight to raise the wages of all low-wage workers, we should learn from the Swedish example and simultaneously push for extensive government retraining programmes that will allow displaced workers in backward firms and industries to find alternative employment. It is also high time for the US labour movement to join other industrialized nations by pushing for a comprehensive national healthcare system that will finally take working people's right to quality healthcare out of the downward spiral of capitalist competition. Of course, the other critical lesson from both the Canadian and European experiences is that the most effective way for working people to fight for all of these programmes is to form their own political party.

Organising across the Globe

Moving on to the international arena, there is no question that two of the most difficult problems facing the labour movement are the growing intensity of international competition and the growing international mobility of capital. As our general discussion of competitive wage determination has clearly anticipated, the development of prolonged periods of growing inter- and intra-industry wage differentials does not negate the presence of long-term competitive forces that will eventually place very powerful limits on these widening wage gaps. As wage differentials continue to grow and fixed capital continues to depreciate, even capitals within the ‘core’ sectors of the US economy have

22 As Marx pointed out when the first factory acts were introduced in England despite similar protests from many sectors of the capitalist class, ‘A simple compulsory law is sufficient to enact away all of the so-called impediments opposed by the nature of the (labour) process, to the restriction and regulation of the working day’ (Marx 1967a, p. 477).

finally begun to act to reduce these differentials. And as US workers are now painfully aware, this equalisation process is increasingly taking place across national borders.

A striking example of these competitive limits that are now bearing down on US workers was recently discussed in the business section of the *New York Times*.²³ Within the electric motors division at General Electric, it was reported that American workers were being paid \$16.16 per hour in wages and benefits as compared to \$2.20 an hour in a similar GE factory in Singapore and \$1.23 in Mexico. Thus, GE told its US employees that they had to make a choice. Either they accept a cut in their hourly wage rates from \$11.00 down to \$9.80, which would give the company the incentive to invest \$200 million into its domestic plants, or workers would be facing the serious prospect of losing their jobs. Given this trade-off, US workers voted 2 to 1 to take the wage cut.²⁴

While the workers at GE may not have had any other real choice within the short-run, there is a long-run choice for the US labour movement as a whole. Given these increasing pressures to equalise wage rates, US workers can either stand by as their wage rates are ground down to more competitive standards within the international labour market, or they can become involved in an international labour movement that can attempt to improve wages and working conditions within other countries. Moreover, as an intermediate step they can also attempt to pressure the state to impose substantial relocation costs on capitals that are shutting down their operations within the United States. However, if the US labour movement is seriously going to become part of an international labour movement, unions must resist the temptation to rely on 'Buy American' campaigns and other protectionist measures that scapegoat foreign workers and make the goal of international solidarity ever more elusive.

Although Emmanuel and other Marxist economists have sometimes argued that the interests of US workers are opposed to the interests of third world workers because of 'unequal exchange' and other forms of indirect exploitation, this book suggests that this claim has been extremely short-sighted at the very best. Even when the regulating conditions of production are primarily located within the United States, our analysis of the competitive limits to wage differentiation suggests that wage increases in these regulating capitals will tend to

23 *New York Times*, 13 March 1988.

24 In other cases, US workers are facing similar choices not because of their higher hourly wage rates but because of higher unit costs that are due to the inefficiency of the capitals that are employing them. Unfortunately, the forces of capitalist competition do not discriminate concerning the ultimate causes of intra-industry cost differentials. In either case, it is generally the workers who are forced to suffer.

be limited by the unit costs of subdominant capitals. Thus, if these subdominant capitals are located in extremely low-wage sectors of the international economy, the low-wage rates of these less developed sectors will tend to constrain the ability of US workers to raise their own wage rates. Of course, as the GE example clearly indicates, once US capitals begin to exercise their options to build their newest plants in these lower wage regions, the limits to rising wage rates become far more constrained. Indeed, as the *regulating* techniques of production are increasingly located in these low-wage nations, the continued failure to organise these regulating capitals will eventually prove disastrous to US workers. Thus, on the eve of the North American Free Trade Agreement, Marx's time-worn slogan 'Workers of the world unite' takes on even greater significance within the modern period when both capital and labour markets are truly becoming internationalised.

The remaining critical problem facing the labour movement is the deepening world capitalist crisis.²⁵ As noted in chapter 4, when the capitalist economy enters a period of prolonged crisis and stagnation due to serious declines in overall levels of capitalist profitability, the constraints on wage rates that are imposed by the general laws of capitalist accumulation become far more severe. Indeed, as the crisis continues to express itself, the deceleration in the rate of growth of productive investment has made it more and more difficult to increase the productivity of labour. Moreover, slower rates of growth of employment will also exert an increasing downward pressure on wage rates as a result of the rising reserve army of labour. Finally, as capitalist competition becomes more and more intensified due to the pressures of declining rates of growth within the marketplace, individual capitals will face increasing pressures to

25 With the benefit of hindsight, it has now become clear that the Reagan/Thatcher policies which were largely designed to increase corporate profitability by ruthlessly attacking the wages and working conditions of the working class in the US and UK were actually quite successful. As Shaikh (2011) very plausibly argues, these efforts to increase the rate of exploitation along with historic reductions in interest rates were largely responsible for a capitalist recovery in the US from the mid 1980s to the beginning of the next century. By 2008, however, this massive expansion of credit proved unsustainable, and it all fell apart. Of course, as the fallout from the massive 2008 crisis continues to unfold, the attacks on working people have been deepened even further. Indeed, as Shaikh interestingly noted, one of the primary reasons for the more recent European push for austerity after the financial crisis was because 'European labour survived the neoliberal era in better shape than US and British labour and, as Reagan and Thatcher showed, a crisis provides the perfect cover for an attack on labour. From this point of view the possibility that austerity may make things much worse for the bulk of the population is an acceptable risk if it weakens a hitherto resistant labour force' (Shaikh 2011, p. 55).

protect their declining profit rates and market shares by intensifying the labour process and forcing workers to accept wage cuts.

Although there is strong evidence suggesting that the economic crisis in the 1970s was rooted in the long-run decline of the general rate of profit throughout the world capitalist economy,²⁶ US corporations have continually attempted to suggest that the US crisis is primarily due to the declining competitive position of American firms within the international economy. And, of course, the chief villain from the corporate perspective is the high wage rates of labour and not the presence of outdated capitalist equipment. By making this argument, corporations have been attempting to convince the US labour movement that it is time to resolve the old antagonisms so that both capital and labour can finally pull together in order to improve the competitive position of US firms.

Once again, however, the analysis within this book suggests that increasing militancy and wider levels of worker organisation will be the only way for workers to prevent even more serious setbacks in their wages and working conditions within the next decade. Despite calls for 'equal sacrifice', if the labour movement continues to remain weak and disorganised, it will be workers who will continue to bear the main burden of the deepening economic crisis. Indeed, as capital knows quite well, one of the key ways to create the basis for the next wave of accumulation is to raise the rate of profit by utilising the crisis to brutally intensify the labour process and dramatically lower wage rates. Moreover, if capitalists can convince workers to begin to identify with the interests of their employers through profit-sharing, quality of life circles, team concepts, and other so-called forms of 'job enrichment', the chances for building a strong unified labour movement that can organise the unorganised will be even further reduced. Equally serious, unions will increasingly lose their ability to keep wages and working conditions out of the competition of capitals. Thus, pattern bargaining will continue to deteriorate as the wage concessions of one group of workers are utilised by other capitals to exact even more concessions in wages and working conditions from other workers.²⁷

At first glance, periods of general crisis appear to be desperate economic situations where the working class has very little option to defend itself short of revolution. But, it is precisely during these times that we must once more look back to the historical lessons of the Great Depression in the 1930s. Despite far greater levels of unemployment, the labour movement was able to achieve its

26 Shaikh 1987 and Hill 1979.

27 For excellent arguments against continuing wage concessions during the 70s and 80s, see Slaughter 1983 and Moody 1988.

greatest successes during this very period. Moreover, workers did not achieve these successes by accepting wage concessions in order to make their employers more competitive. Quite the contrary, they raised the costs of obstruction by sitting down in the factories, physically preventing housing evictions, and conducting mass demonstrations for the rights of the unemployed.

In conclusion, it is important to point out that Marx's famous argument concerning capitalism's long-run tendency to homogenise the working class in terms of skill levels never implied that the development of a cohesive and unified working class movement would develop spontaneously. Indeed, Marx was very well aware of the fact that the ongoing forces of capitalist competition and accumulation would repeatedly tend to generate serious divisions within the working class. He also understood that capital would continually attempt to find other political and social devices to intensify these divisions among workers.

Thus, although Marx spent most of his evenings working on his analysis of the laws of motion of the capitalist mode of production, he spent many of his days working tirelessly for the First International. He knew that workers would have to develop very powerful political and economic organisations in order to counter these ongoing divisive pressures, and ultimately protect their standards of living. In fact, Marx argued that one of the most critical roles of the trade union movement was to struggle to improve the social conditions of workers *wherever they happened to be employed*. Thus, in his instructions to the delegates of the Geneva Congress of the First International, he charged the trade union movement with the following responsibilities:

Apart from their original purposes they must now learn to act deliberately as organising centers of the working class in the broad interest of its *complete emancipation*. They must aid every social and political movement tending in that direction. Considering themselves and acting as the champions and representatives of the whole working class, they cannot fail to enlist the non-society men into their ranks. They must look carefully after the interests of the worst paid trades, such as the agricultural labourers, rendered powerless by exceptional circumstances. They must convince the world at large that their efforts, far from being narrow and selfish, aim at the emancipation of the downtrodden millions.²⁸

28 Marx 1866, cited in Fernbach (ed.) 1974, p. 92.

As I have attempted to argue throughout this book, many of Marx's original arguments continue to ring just as true today as they did over one hundred years ago. This is unfortunately because the laws of capitalist competition and accumulation are still very much with us.

The Past 20 Years Have Not Been Pretty

The first edition of my book came out in 1993, just months before the passage of NAFTA ramped up the forces of capitalist competition across the North American continent. While US and Canadian labour leaders were rightly concerned about being thrown into direct competition with Mexican workers, who had weaker legal protections, weaker unions, and far lower wage rates, the great majority of mainstream economists strongly supported the trade agreement.

Once again, based on their highly idealised notions of capitalist competition and economic development, they argued that everyone would gain from the virtuous circles of increased competition, rising productivity, and rising incomes. All of their textbook models predicted that as US capital investment deepened in Mexico, productivity would increase and Mexican wages would rise automatically – regardless of whether or not workers were effectively unionised. Thus, workers in Canada and the US had nothing to fear. On the contrary, Mexican workers would soon be able to afford big ticket consumer products from the North, and this would strengthen job growth in all three countries. It was a clear win/win for everyone involved – at least in theory.

It is worth remembering that liberal economists made similar arguments, although they did urge policy makers to consider providing training and assistance for those workers who would inevitably go through a ‘temporary period of readjustment’ as their industries conformed to the principles of comparative advantage. Robert Reich, who was then serving as Clinton’s Secretary of Labor, argued that ‘free trade’ would be largely beneficial for US workers. North American workers would simply have to give up those dirty, unskilled manufacturing jobs to the developing world, and we would happily pursue the benefits of our comparative advantage in the high skill sectors of the new information economy.¹

But although productivity did rise in Mexican manufacturing, any positive employment effects in that sector were greatly overwhelmed when over a million small farmers were also forced off their land due to competition from imported US grain. And, as unemployment rose sharply in Mexico City, Mexican workers saw their wages move down, not up. Over the next two decades, North American workers lost millions of manufacturing jobs to lower wage

1 See Reich 1992.

countries throughout the developing world (even in those high-tech areas of the ‘new economy’ which were now being outsourced to India and China), and US employers predictably used the threat of plant relocation to bust unions and force down US wage rates.² Meanwhile, in Mexico, workers eventually saw many of those new manufacturing jobs take off for even lower wage areas like China and Bangladesh.

Eventually, some liberal economists like Joseph Stiglitz began to rethink their positions. Indeed, after witnessing the carnage from these neoliberal policies for the past 20 years, even Robert Reich has now had to rethink his views on the supposed benefits of ‘free trade’.

Perhaps the only good thing that came out of Clinton’s aggressive railroading of NAFTA through Congress was that it helped create a small space within the labour movement to finally begin to talk about the need for an independent labour party that would unapologetically speak for working people, and not for corporate America. Indeed, by 1996 things had gotten so bad in the US that when the Labor Party organised its founding convention in June of that year, over 1,300 delegates came to Cleveland to attend. After five years of organising across the country, those delegates represented six national unions, over a hundred union locals and over a million union members. As a member of the programme committee which drafted the Labor Party’s Program for Economic Justice, I can attest that this was a heady moment for all those who attended. As fellow Labor Party organisers Mark Dudzic and Adolph Reed have recently noted, the Labor Party was ‘the most self-conscious and institutionally grounded attempt to mobilize around an explicitly working-class politics in the US within at least a generation’.³ It seemed as though the labour movement was about to take a major step toward independent political action – or so we had hoped.⁴

A year before this historic convention, another glimmer of hope was sparked by John Sweeney’s ‘new voice’ leadership of the AFL-CIO, which vowed to

2 See Bronfenbrenner 2000. For useful analyses of the overall effects of these free trade agreements for working people, see Scott 2003, Bronfenbrenner and Luce 2004, and Public Citizen 2015.

3 Dudzic and Reed 2014, p. 371.

4 Regarding the unfortunate demise of the Labor Party several years later, Dudzic and Reed note the following: ‘Although it won endorsement of a substantial section of the institutional labour movement, the Labor Party was never able to develop the “exit strategy” that would make it feasible for unions to disengage from the two-party system. This flaw proved fatal in the early years of this century as labour experienced a series of strategic defeats and went into retreat’ (Dudzic and Reed 2014, p. 359).

reverse the serious, long term decline of union membership across the US. But, as union activists like Jerry Tucker and *Labour Notes* writers like Jane Slaughter and Kim Moody warned us at the time, if unions were going to be successful, they would have to seriously rethink their framework for confronting capital. Indeed, at the same time that the new voice leaders were pushing for new organising across the country, many of them were also arguing that labour management cooperation was the way of the future within the ‘new, highly competitive global economy’.⁵

In 1998, this writer joined with other left academics like Tom Juravich and Kate Bronfenbrenner to argue for a different path for labour. In an article for *The New Labour Forum*, I summarised some of the most important implications of my book for the labour movement:

For the past two decades, corporate America has engaged in a full frontal assault on the wages and working conditions of working people throughout this country. The cumulative effects of this attack have been so brutal that forms of exploitation are reappearing that many thought they’d never see again, at least not here in the U.S. If someone had suggested back in the 1960s that we would see the reappearance of rotating twelve hour shifts, an epidemic of work related ‘repetitive stress injuries,’ and wages so low that two family members would have to work full time just to keep afloat, many of us would have questioned that person’s sanity. Nonetheless, this is the new reality that workers and their unions must now confront.

Despite this unrelenting and widespread corporate attack, many of our union leaders and progressive labour relations ‘experts’ are refusing to read the writing on the wall. Rather than urging workers to rebuild their unions into serious class-conscious organisations that can finally confront this lean and mean agenda, these leaders suggest that labour’s primary hope lies in developing cooperative, win/win strategies that can somehow convince employers to choose the ‘high road’ rather than their current low one ...

If we are really going to learn from our past mistakes, however, we need to take a harder look at these win/win strategies which much of the current

5 See report by AFL-CIO Committee on the Evolution of Work entitled ‘The New American Workplace: A Labour Perspective’, February 1994.

AFL-CIO leadership apparently continues to endorse. These arguments are based on serious illusions about how capitalism works at both the micro and macro levels, and they embrace some of the very dynamics of the system (i.e., competitiveness, cost minimization, etc.) that have been grinding working people into the ground for decades. Worst of all, by pitting workers in different plants, firms, industries, and countries against one another, 'competitiveness' strategies are actively undermining our ability to build greater levels of working class solidarity. Yet, solidarity is the only foundation for any serious strategy that can effectively rebuild the labour movement. It is also the key to developing a fundamental alternative to capital's lean production agenda which depends upon the annihilation of virtually all real notions of community and demands that workers forget that 'an injury to one' is truly 'an injury to all'.⁶

I was hoping that my arguments might help to provide stronger theoretical backing for activists in the new directions movement who were calling for a return to the kind of militant, rank-and-file unionism that had so successfully built the CIO in the 1930s. I also wanted to lend support to workers who were courageously attempting to stand up to capital in critical struggles during the eighties and nineties at workplaces like Hormel, Caterpillar, A.E. Staley, Bridgestone-Firestone, and the Detroit newspapers. As is so often the case, it was the rank-and-file workers, and not the international leadership of these unions, who were trying to carve out a different and more effective path for labour. It is also one of the great tragedies of recent US labour history that many of our international unions did not give these workers the kind of systematic, class-wide support that might have begun to turn things around. Instead, most of these struggles went down to serious defeat.⁷

Given these debilitating defeats in the 1990s, it was not surprising that Sweeney's new voice leadership faced great difficulties making good on their promises to turn the labour movement around. And so, in 2005 the US labour movement went through a traumatic split over the issue of new organising. Although some were hoping that the new 'Change to Win' split off would bring back the inspiring days of the CIO when John L. Lewis stormed out of the AFL in order to create a more militant and democratic union movement which would go on to organise millions of unskilled workers, this modern split off was unfortunately quite different. While leaders of Change to Win unions

6 Botwinick 1998.

7 See Rachleff 1999, Franklin 2001, and Moody 2007. Important exceptions to this downward trend were the strikes at Pittston, UPS and NYNEX.

like the SEIU were saying good things about developing national strategies to achieve serious levels of union density in key sectors like healthcare, their methods for achieving that density left a great deal to be desired. As Kim Moody (2007) pointed out, the 'new progressive' approach of unions like the SEIU actually represented a particularly disturbing form of 'bureaucratic corporate unionism'.⁸

This new direction is a step beyond business unionism in its centralization and shift of power upward in the union's structure away from the members, locals, and workplace; its fetish with huge administrative units; and its almost religious attachment to partnerships with capital. We call it corporate unionism because its vision is essentially administrative, its organisational sensibility executive rather than democratic, and its understanding of power market-based, and hence, shallow.⁹

Shortly after Moody made these comments, the SEIU mimicked corporate culture even further by developing national call centres in order to process member grievances in their increasingly gigantic multi-state 'locals', which were now averaging approximately 73,000 people per local.¹⁰

And so, as corporations systematically pursued their neoliberal agenda to destroy all of the hard won protections that workers had achieved since the Great Depression, our labour movement *on both sides of the 2005 split* continued to be no match for the tasks at hand. While many of our labour leaders desperately tried to convince their employers that unions might actually help their firms become more competitive, those same corporations were using those competitive pressures to force labour back 100 years. In addition to going after our unions, they pushed 'our' government to unleash the forces of market competition on every possible level: between nations under the banner of 'free trade'; between states (within the US) under the slogan of 'state's rights'; and most important, between working people themselves – plant vs. plant, company vs. company, employed vs. unemployed, and private sector vs. public sector.

As many commentators have noted, the results of this 30-year corporate onslaught have been devastating for working people across the globe. While productivity levels continued to rise significantly as corporations extended

8 Moody 2007.

9 Moody 2007, p. 196.

10 For excellent critiques of this new kind of unionism, see Moody 2007 and Early 2011.

their lean production agenda from auto all the way to healthcare, wage rates have either stagnated or declined for the majority of workers in most capitalist countries. As a result, levels of inequality within the US have reached levels that have not been seen since the days of the robber barons at the end of the nineteenth century.¹¹

Just when many of us were hoping things had finally reached rock bottom, they got far worse as a result of the global economic crisis which exploded on the world scene in 2008.¹² As Naomi Klein had warned us in her provocative book, *The Shock Doctrine*, if the forces of the left were not sufficiently organised to effectively push for a progressive way out of the next serious crisis, the corporate ruling class would surely use the shock of the economic crisis to further restrict our democratic rights and deepen their attack on the wages and living conditions of the majority of working people.¹³ Indeed, they would pursue policies that no self-respecting 'democracy' would ever tolerate under more normal times.

Within the US, the massive financial crisis, combined with Washington's refusal to counter the crisis with serious fiscal stimulus programmes, inevitably contributed to a series of cascading fiscal crises within state and city governments across the country. And although the occupy movement tried to remind us that the bankers and hedge fund managers were the key culprits in this crisis and that they should be forced to pay for the damages, at least 12 Republican Governors cynically used those state fiscal crises as a platform to attack the collective bargaining rights of 'greedy' public sector workers who still had the audacity to enjoy reasonable pensions and 'Cadillac' health plans. As this right to work frenzy spread to several traditionally union-friendly states like Wisconsin and Michigan, Moody and Post correctly note that 'the very institutional basis of the trade union movement – state regulated union recognition and collective bargaining – are (now) under attack across the United States'.¹⁴ Similarly, in Europe the overhang of debt from the financial crisis created a useful platform for the introduction of draconian austerity programmes that are now crippling economies like Greece and Spain in order to seriously weaken some of the last remnants of European social democracy.

11 Awareness of this explosion of inequality both within industrialised nations and across the globe was recently brought to a peak by the publication of Thomas Piketty's now famous book on *Capital in the Twenty-first Century* (Piketty 2014). Indeed, even the IMF has now recognised the gravity of this problem. See Dabla-Norris et al. 2015.

12 See Shaikh 2011.

13 Klein 2007.

14 Moody and Post 2014, p. 295. See also Lafer 2013.

Indeed, both in the US and in several European countries, things have gotten so difficult for alarmingly large numbers of young people (both educated and uneducated) who have been struggling to find any kind of stable employment, that some labour researchers have provocatively argued that we are facing an entirely new class of workers who should now be designated as the new 'precariat'.¹⁵ However, as I have tried to argue throughout this book, we have seen many of these disturbing dynamics before.

As Marx noted over 150 years ago, the unbridled forces of capitalist competition and accumulation generally wreak havoc on the wages and living conditions of the great majority of working people when there is little to hold those forces back. During the early years of industrialisation in England, before labour had gathered the strength to fight back in the second half of the 1800s, one portion of the working class was forced to work itself to exhaustion working 16-hour days, while many others were forced to languish in various sectors of capital's reserve armies. Marx largely defined these far more *precarious* sectors of the working class based on their degrees of access to more stable employment. And when these unfortunate workers did sporadically find employment, it was invariably at far lower wage rates, coupled with horrendous working conditions.¹⁶ Thus, although some have suggested that neoliberalism is a pro-

15 Standing 2011.

16 Although the various sectors of the reserve army may disproportionately affect different segments of the working class at different times (young workers, old workers, women, workers of colour, agricultural workers, immigrants), capitalism's reserve armies have been working to re-differentiate the working class ever since rising levels of mechanisation normalised substantial amounts of unemployment – even during growth periods. (See Chapter 4 above). (For a similar classical perspective on the so-called precariat see Brian Palmer 2013). While some fear that this trend towards a new precariat is now growing by leaps and bounds, Moody and Post usefully point out that within the current US economy 'about 90 per cent of all employed people in the US work in traditional employer-employee arrangements, with 83 per cent of those in full time work' (Moody and Post 2014, p. 298). Nevertheless, it is important to note that a recent study by Katz and Krueger does tentatively indicate that 'the percentage of workers engaged in alternative work arrangements – defined as temporary help agency workers, on-call workers, contract workers, and independent contractors or freelancers – rose from 10.1 percent in February 2005 to 15.8 percent in late 2015'. While these authors speculate that these changes could be due to changes in the profit maximising strategies of firms under competitive pressure, they also note that it is 'plausible that the dislocation caused by the Great Recession in 2007–2009 may have caused many workers to seek alternative work arrangements when traditional employment was not available' (Katz and Krueger 2016, p. 18). Clearly more time will be needed to see if these trends continue.

foundly new stage of capitalism, Dudzic and Reed may be more on target when they suggest that ‘neoliberalism is best summarized as capitalism that has effectively eliminated working-class opposition.’¹⁷

Where Do We Go from Here? Lessons from the 1930s¹⁸

In difficult times like these when capital has been ascendant for so many years and both the left and the labour movement have become so terribly weak, it is easy to fall into deep pessimism and/or hunker down into various forms of cynical pragmatism. Nevertheless, this writer will do his best to argue that although things are extremely serious, they are not hopeless. Moreover, there is a great deal that we can learn from our own history during the 1930s that can help us move forward today. Of course we must also ground these historical lessons in a careful analysis of the ongoing dynamics of capitalist competition and accumulation.

While some of our labour leaders argue that the ‘new realities of global competition’ now leave unions little choice but to join the corporate team and help their employers increase market share (i.e. cynical pragmatism), I have argued in this book that the forces of capitalist competition are not new to us. Equally important, the labour movement once knew exactly how to deal with them.

When the CIO organised meat-packing, steel and auto in the 1930s, capitalist competition was alive and well. Nevertheless, these unions effectively neutralised that competition by establishing industry-wide wage standards which all *regulating firms* were forced to follow. Minimising costs at the expense of workers’ living and working conditions was declared off limits, and wages and benefits were effectively taken out of capitalist competition.

Drawing from the analysis of regulating capitals in chapter 6 of this book, it is also critical to note that these regulating firms were eventually able to raise their prices in order to achieve a competitive rate of return – not because they possessed monopoly pricing power, but because they represented the

¹⁷ Dudzic and Reed 2015, p. 373.

¹⁸ This final section draws heavily from an article I wrote for the *New Labour Forum* in 1998. I have also borrowed from two excellent articles on the same subject which were recently written for the 2015 edition of the *Socialist Register* (see Dudzic and Reed 2014, and Moody and Post 2014). Although these three articles stress different aspects of the crisis on the left and in the labour movement, they are essentially moving in similar directions.

regulating (or competitive) conditions of production within the industry. Workers in those CIO unions had essentially imposed a new competitive cost structure on the entire industry, and as long as the unions maintained effective levels of organisation in all of the regulating firms, relative prices eventually had to adjust.

This is an important point, because this analysis of regulating capitals argues that *any reasonably healthy industry* (whether steel, auto, meat-packing, health-care, hotels or fast food) can ultimately be forced to incorporate higher wage rates within its cost structure. They simply need to be properly organised on an industry-wide basis.

When this writer learned that SEIU and other 'Change to Win' leaders were calling for serious, industry-wide strategies to take on several of the long neglected service industries, I was cautiously optimistic. But as many activists in the labour movement warned, union density is only one of the essential components for successfully taking on capital.¹⁹

Continuing with our discussion of the 1930s, it is also critical to recognise that those CIO unions were only able to get those giant corporations to take them seriously at the bargaining table because *thousands of militant workers had developed the ability to impose significant costs on those firms if they refused to take them seriously.*²⁰ Through the effective use of mass picket lines during strikes, sitdowns, slowdowns, boycotts, and other creative tactics, those militant CIO unions forced their employers to weigh the relative costs of allowing wages and conditions to gradually improve, versus the alternative costs of fighting a prolonged battle with their unions. And, as in other competitive choices facing firms, employers were compelled to adopt the option that would hopefully minimise their overall costs. In effect, the CIO found a way to turn the forces of competition against their employers.

The next major lesson of the 1930s is that the CIO unions were successful at imposing significant costs on capital because they understood two other very important things. First, in order to mount a prolonged campaign against their bosses, workers would need to feel that they had real ownership in the decision making and planning of their union. If the campaigns were going to be successful, workers would also need to actively participate and support each other throughout the plant, and they would have to seek out allies from the surrounding community in order to secure wide support for their picket lines. Contrary to what Andy Stern and other leaders of the SEIU have sometimes

19 See Olney 2002, Crosby 2005, Bronfenbrenner 2005, and Moody 2007.

20 See Chapter 6 above.

suggested, real participatory democracy was not superficial window dressing – it was essential to making all of this happen.²¹

The second key piece to imposing costs on capital is that the union leadership would have to strategically find ways to marshal serious concrete support from the greater labour movement so that they could signal to their employers that they were prepared for a prolonged battle. Equally important, they also had to lay the groundwork for support from those masses of unemployed workers who might be tempted to cross their picket lines out of desperation. The labour movement did this by seriously fighting for jobs and relief programmes and by working with community groups to resist evictions when unemployed families were being thrown onto the streets. All of this required a vibrant, class conscious labour movement with a strong solidaristic culture that truly understood that the struggles of workers anywhere, against any particular employer or industry, were also their own.²²

Over the past three decades, many of our labour unions have unfortunately forgotten these key lessons from the 1930s. As Moody and Post point out, serious, well-organised strikes have unfortunately become a rare event. ‘Work-days lost from strike activity dropped precipitously, from a yearly average of 31,152,000 days during the strike wave of 1967–74, to a mere 9,061,000 at the depth of the recession in 1981, to an average of only 6,075,000 during the neo-liberal boom of 1983–2007’.²³

Equally important, in his excellent little book, *Reviving the Strike*, Joe Burns points out that the most common form of strike today is largely ineffectual and pro forma.²⁴ The union announces their strike, a small number of striking workers stand outside the plant or office with their picket signs, and production is allowed to go on as usual. Although the employers are not faced with serious, escalating costs, the union nevertheless hopes they will somehow shame their

21 For an excellent discussion of the critical importance of union democracy, see Parker and Gruelle 1999. See also Bronfenbrenner and Juravich 1998.

22 I often think about what might have happened if the entire labour movement had decided to seriously support the air traffic controllers (PATCO) in 1980 when Ronald Reagan drew his line in the sand against organised labour. What if the teamsters had refused to supply the airports, the pilots and stewardesses had refused to fly the planes, the mechanics had refused to repair them, and workers from all sectors of the economy joined their picket lines? It is probably fair to suggest that this would have sent a very different signal to both Reagan and his corporate allies. Instead, Reagan’s crushing of the PATCO workers sent a very clear signal to capital that it was now open season on labour.

23 Moody and Post 2014, p. 300.

24 Burns 2011.

bosses into bargaining in good faith. Perhaps even worse, when rank-and-file workers have attempted to mount real pitched battles against their employers, the international unions usually do not respond with the kinds of massive, class wide solidarity that would be required to sustain and win these types of prolonged struggles.

Some of the reasons for this general decline in militancy go back to the Taft Hartley Law (1947) which systematically outlawed many of the CIOs most successful solidaristic tactics like mass picket lines and secondary boycotts. More recently, some of the blame must also go to capital's increasing willingness to use permanent replacements to break critical strikes in the 1990s such as those at A.E. Staley and Caterpillar. However, Moody and Post importantly point out that while employer threats have certainly increased over the past two decades, the actual deployment of permanent replacements has been far less common, amounting to only 3 percent of disputes in 2003.²⁵

Perhaps the most important reason that many unions have forgotten how important militant strikes are is because our labour movement has largely moved away from the CIO model of militant social unionism to embrace a kind of business unionism which is highly bureaucratic and has increasingly adopted the framework of labour management cooperation as an alternative to adversarial unionism. Thus, when the long-term profitability crisis of the 1970s pushed corporations to become far more aggressive towards their unions in the 1980s, most of our labour leaders were completely caught off guard. And when they finally realised they were going to have to defend themselves, participatory democracy and class-wide solidarity were distant memories, and they no longer knew how to effectively mobilise their members.²⁶

Regardless of the reasons for this unfortunate decline in labour militancy, Joe Burns is absolutely correct when he notes the following: 'Independent trade unionism requires a powerful strike, based on solidarity and stopping production. Redeveloping such a strike, while admittedly difficult, must be labour's top priority'.²⁷

25 Moody and Post 2014.

26 Moody (1988) does an excellent job of tracing the devolution of most of our unions from the social unionism of the 1930s to the business unionism of the 1980s. See also Lichtenstein 2002.

27 Burns 2011, p. 28. Both Burns (2011) and Moody and Post (2014) also argue that the revival of industry-wide bargaining will most likely have to transcend the post-WWII NLRB framework which has not been friendly to any of these vital CIO strategies.

But Hasn't Accelerated Globalisation Made the Old CIO Strategies Obsolete?

Hasn't globalisation decimated our manufacturing sector? And doesn't 'industry-wide' organising now require international organisation in the great majority of cases?

Although accelerated globalisation has certainly presented some very difficult challenges for labour, it is important not to exaggerate this issue. As I and others have pointed out previously, many US industries where labour is now too weak to impose pattern agreements are largely contained within our own national borders.²⁸ This is true of trucking, construction, meat-packing and poultry, as well as many service industries (e.g. hospitality and healthcare) where the relevant industry boundaries are determined by particular regions within the US (often around key cities). As many service sector unions are now finding out, once we move away from the dual economy framework which suggested that many of the service industries were 'too competitive' to allow for decent wages and conditions, there are a number of interesting possibilities for unions to pursue. In fact, within the world of international capital mobility, many of these service and retail sectors may actually be easier to organise because we do not have to worry about capital flight.²⁹

Before we write off the manufacturing sector, however, Kim Moody has done important work showing that manufacturing is far from dead within the US economy.³⁰ On one hand, there is no question that the number of production workers in manufacturing has gone down significantly. Between 1994 and 2013, we lost over 4 million production workers, which amounts to a decline of 33 percent. Nevertheless, Moody and Post also note that 'As a percent of real GDP, measured by final product, goods production rose from 22 % during the 1960s and 1970s to 28 percent in the 2000s and 31 percent in 2010–2012'.³¹

The authors resolve this paradox by explaining that the well known decline in manufacturing employment is largely due to tremendous increases in productivity which were brought about by the increasing use of lean production techniques – not by the assumed decline of the overall strategic importance of manufacturing within the US economy. Moreover, while this decline in employment can certainly explain a good portion of the decline in *union members*

28 See Botwinick 1998 and Moody 2007.

29 For a more detailed analysis of the various structural factors which either help or hinder union organisation within different industries, see Chapter 6 above.

30 Moody 2007 and 2014.

31 Moody and Post 2014, p. 296.

within manufacturing, another major cause of the union retreat lies 'in the geographic shift in manufacturing and related industries to the South that began after the Second World War'.³²

To document the growing importance of the US South, they point out that 'value added by manufacturing in the South' actually rose from 18 percent of the US total in 1963 to 32.1 percent in 2009. Growing recognition of the South as a major player in the global economy has also recently led the AFL-CIO to think seriously about developing a new 'Southern organising strategy'. Thus, while increasing the level of union organisation within many of our manufacturing industries will require a major organising drive in the South, it is not globalisation which primarily stands in the way here. Moreover, if we can manage to effectively organise these critical sectors, the labour movement can regain a good deal of its former strategic power vis-à-vis the overall US economy.

Moody and Post also go on to point out that 'Lean production methods along with just-in-time delivery systems, increased outsourcing or decentralizing of intermediate parts production, and the rise of the "Big Box" retailers have brought about another major change in both work and the workforce'.³³ This 'logistics revolution' has caused the number of production workers in transportation and warehousing to increase by over 1.4 million workers between 1985 and 2013, for an increase of 55 percent. The authors also note that this process has been a double-edged sword for the labour movement. On one hand, 'the reorganisation of intermodal transportation as logistics has facilitated the geographic dispersion of industry in North America'. This process, coupled with lean production techniques, which often rely on a good deal of outsourcing, has allowed capital to relocate to less unionised regions and nonunion firms. On the other hand, this same process has also created large concentrations of warehouse workers in three 'hub' centres in Los Angeles, southwest of Chicago, and along the NJ Turnpike. And as many of these warehouse workers are learning as they begin to organise, these inter modal, just-in-time delivery systems can be quite vulnerable to strategic actions of well-organised workers.³⁴ Thus, interesting new possibilities for imposing costs on capital have arisen.

Returning to our discussion of the impact of globalisation on the labour movement, we do finally need to discuss those industries where many of the regulating capitals do actually exist beyond our borders. Here accelerated globalisation has clearly been an important factor in the labour movement's decline

32 Ibid.

33 Moody and Post 2014, p. 297.

34 See Jane Slaughter 2012.

since the mid-1970s. It is part of the reason that industries like auto have become more difficult to organise, and other industries like textiles and consumer electronics have been almost entirely eliminated within the US. Nevertheless, we still need to be careful not to allow the spectre of globalisation to be so exaggerated that we are forced into a false choice between either instant global labour organisation (and hence, hopelessness), or total capitulation to the all powerful 'forces of global competition'.

Clearly, from the analysis in this book, if the regulating capitals of a particular industry do exist in other countries, than the most effective organisation of that global industry will ultimately require international organisation. However, as Sam Gindin pointed out back in the 1990s in the case of the US auto industry, if we could stop being paralysed by the daunting task of total international labour organisation, we might realise that we could give our German brothers and sisters invaluable international assistance by simply organising those BMW and Mercedes plants in the southern states of our own country.³⁵

It is also important to note that there is growing evidence to suggest that some of those global corporations, which were so hell bent on seeking out cheap labour wherever it could be found, are slowly beginning to return in order to produce for the US market. In my original conclusion for this book, I noted that back in the early 1990s the electric motors division at General Electric was forcing its US workers to make serious wage concessions, or face losing their jobs to workers in Singapore or Mexico. Now, 25 years later, it appears that General Electric has new plans to bring back a good deal of its production work in the home appliance industry from China, and return it to its old haunt in Louisville, Kentucky. In a 2012 article from *Atlantic Magazine*, Charles Fishman also noted that 'The transformation under way at [GE's] Appliance Park is mirrored in dozens of other places with Whirlpool bringing mixer-making back from China to Ohio, Otis bringing elevator production back from Mexico to South Carolina, even Wham-O Frisbee – bringing moulding back from China to California'.³⁶

Evidently in the outsourcing rush to take advantage of very low labour costs in China during the 1990s, many companies underestimated the hidden longer term costs of totally detaching their production facilities from product

35 Gindin 1997. Unfortunately the most recent attempt to organise the VW plant in Tennessee was unsuccessful. While many factors played into this defeat, Mike Elk argues that the UAW's two tiered wage agreements and behind the scenes bargaining with VW management did not help make workers feel positive about the union (see Elk, 'Sweatheart Deals Hurt Labour', *New York Times*, 17 February 2014).

36 See Charles Fishman, 'The Insourcing Boom', *Atlantic Magazine*, December 2012.

design and development – particularly in industries like home appliances where product cycles have been significantly reduced. Fishman also lists several other factors which are now changing the direction of capital investment. Most important, energy prices are now much higher in China relative to the US, and wages in China are now five times what they were in 2000 – and they are expected to rise in the future. In the case of GE's appliance division, the author also notes that 'American unions are changing their priorities'. In the '70s and '80s he claims that Appliance Park was known as 'Strike City'. But in 2005, the union agreed to a two tier wage scale, and now 70 percent of the jobs start at just over \$13.50 an hour, 'almost \$8 less than what the starting wage used to be'.

More recently, the *New York Times* of 3 August 2015 noted that even Chinese textile mills are now beginning to relocate some of their more capital-intensive production processes to the US South for some of the same reasons listed above. The article also pointed out that investment in American textiles has not come just from China. Last year a leading textile manufacturer in India broke ground on a \$70 million factory in Sylvania, Georgia, and a Brazilian denim manufacturer has announced that it would be opening a spinning, dyeing and weaving facility in Edinburg, Texas. In terms of overall investment within the US, the article notes that 'from 2000 to 2014, Chinese companies invested \$46 billion on new projects and acquisitions in the United States, much of it in the last five years'. Of course some of the capital that is leaving China is also shifting to even lower-cost countries like Bangladesh, India and Vietnam.³⁷

As our analysis of competitive wage determination has suggested, the dynamics of capitalist competition may sometimes take decades for capital mobility to act in order to close growing wage gaps. But if that gap grows large enough, those competitive limits will assert themselves and capital will begin to relocate beginning with the more labour intensive industries and moving on from there. Now, after more than three decades of capital flowing out of the US to take advantage of the wage gap between the US and very low wage countries like China, that gap has been slowly closing as US wages have been steadily declining and wages in China have begun to rise.

At this point, thanks largely to the courageous efforts of Chinese workers who have been struggling mightily to improve their wages and working conditions despite facing harsh repression and draconian labour laws, US workers in related industries may begin to experience a bit more breathing space. Even better, if they can draw courage from the Chinese experience, the US labour

37 See Hiroko Tabuchiaug, *New York Times*, 3 August 2015.

movement could begin to offer more assistance in getting wages to rise both at home and abroad as they help to build serious international labour organisations that can finally help put the brakes on the global race to the bottom. But as Sam Gindin noted above, for the US labour movement, that job begins here in the US.

Given the Dismal State of the Left, How Can We Get There from Here? A Final Lesson from the 1930s

So far we have primarily discussed the technical aspects of how *effectively organised* workers can successfully take on the forces of capitalist competition within the modern economy. But now we arrive at our final and most difficult question. As Dudzic and Reed have pointed out all too well, both the left and the labour movement are at very low points within the US today. Indeed, based on their quite reasonable definition of the 'left', they argue that 'there is no longer a functioning left in the United States; nor has there been for a generation'.³⁸ However, like many radical labour historians, these writers also understand that a well-organised left is a vital component for rebuilding a militant labour movement.³⁹ So the difficult question is the following: How do we rebuild *both* the left and the labour movement so that they can begin to work in tandem to rebuild those militant, CIO unions and other class-based institutions that will finally allow us to regroup and ultimately move beyond capitalism?

Although many of today's younger activists have tended to assume that the CIO spontaneously exploded with radical labour activity as a result of the Great Depression, the real history is quite different. While the cataclysm of the depression certainly provided a critical catalyst for this history-making transformation, it is not at all inevitable that serious economic crises will spontaneously move masses of working people to the left.⁴⁰ A great deal depends on

38 Dudzic and Reed go on to explain that 'By the left we mean a reasonably coherent set of class-based and anti-capitalist ideas, programmes and policies that are embraced by a cohort of leaders and activists who are in a position to speak on behalf of and mobilize a broad constituency. Such a left would be, or would aspire to be, capable of setting the terms of debate in the ideological sphere and marshalling enough social power to intervene on behalf of the working class in the political economy' (Dudzic and Reed 2014, p. 351).

39 This point is also shared by Moody and Post (2014) who discuss the critical importance of a 'militant minority' within the labour movement.

40 Indeed, the lessons of Italy and Germany during the 1930s are painfully instructive. So too

how well-organised and broad-based the left is in the critical period leading up to the crisis.

Several years before John L. Lewis stormed out of the AFL to form the CIO, communists and other leftists had been doing important organising work which helped to lay the groundwork for the CIO. In other words, it was not simply a lark that Philip Murray took the controversial step of bringing in the communists and other radicals to help him with those CIO organising campaigns in steel and auto. Those leftists were highly organised and they had been conducting painstaking work in the working class for many years, which gave them invaluable organising experience. Equally important, they could draw on significant constituencies of workers in many of those future CIO workplaces and surrounding communities.⁴¹

Having argued that it is unrealistic to hope that both the left and the labour movement will somehow *spontaneously* rebuild themselves when things get worse due to ongoing capitalist crises (and/or the intensifying calamities caused by climate change), how then do we proceed? As Dudzic and Reed have suggested there are very few short cuts here, and it is going to take a great deal of strategic and steady, day to day organising within our unions and workplaces, and within our communities as we slowly begin to rebuild.

Although Moody and Post also suggest that the picture in the US is quite 'gloomy', they remind us that as long as capital continues to pursue its profit maximising goals at the expense of the working class, the signs of underlying class conflict will continually reappear. And as workers have become increasingly angry after three decades of attacks on their living standards, these authors usefully highlight some of the most promising developments that have been bubbling up from the rank-and-file over the past decade. For interesting

are the highly uncertain political dynamics which are currently unfolding in countries like Spain and Greece which have been hardest hit by the recent global financial crisis.

- 41 Although most anti-communist writers have not been willing to suggest that the communists played any kind of positive role within the US labour movement, a number of radical labour historians have done solid work demonstrating that the communists and other radicals played vital roles in the development of the CIO within the 1930s. Randi Storch (2007) has done excellent work on the role of the communists in the pivotal city of Chicago from 1928 to 1935, and Judith Stepan-Norris and Maurice Zeitlin (2002) have extensively documented the important role of the communist left within the CIO. See also Naison 1983, Kelly 1990, Keeran 1980, Schatz 1983, and Barrett 2001. For the pivotal role of Trotskyists within the teamsters union in Minneapolis, see Preis 1972 and Palmer 2014. Of course, the role of both the Communist Party and the Comintern in the later period going into and coming out of WWII is far more controversial – even among many of those who were sympathetic to the CP in the earlier years.

signs of a new militancy, they point to the worker occupation of the Republic Doors and Windows plant in Chicago which was led by the United Electrical Workers (UE) in December 2008, and the prolonged battles of the West Coast Longshore and Warehouse workers, which culminated in July 2011 when hundreds of workers blocked a train heading to a new non-union grain export facility.⁴² Most importantly, they point to the now famous February 2011 uprising of 30,000 public sector workers in Wisconsin in response to Governor Walker's attempt to deprive them of collective bargaining rights. Unfortunately, despite occupying the Capital building and several weekend rallies numbering up to 100,000 workers from many different unions, this highly promising movement was largely diverted into an unsuccessful political campaign against Walker.

Moody and Post then move on to describe a number of promising, insurgent rank-and-file movements within several local unions across the country. The centrepiece of these movements culminated in the 2010 victory of a genuine rank-and-file upsurge in the 30,000 member Chicago Teachers Union, the third largest local in the American Federation of Teachers (AFT). In describing this inspiring struggle Moody and Post note the following:

This movement, formed in 2008, calling itself the Caucus of Rank and File Educators (CORE), began preparing for what they knew would be a difficult fight to stop teacher layoffs, bigger classrooms and longer hours. Using one-on-one organising they prepared the membership for what turned out to be a week-long strike in 2012 that took on Mayor Rahm Emanuel and won some important gains. Illinois law requires a 75 per cent vote of all members for a public sector union to strike; CORE produced a 90 per cent vote in favor. This was a testament to what serious grassroots organising *within* a union can produce.⁴³

Echoing what we have already argued about the critical importance of an organised left within the labour movement, Moody and Post conclude the following:

42 The authors also note that an important precursor to the Chicago factory occupation was that many of Republic's 250 mostly Latino workers had previously participated in the inspiring national day of protest on 1 May 2005, when over five million immigrant workers took significant risks to organise a one-day strike in order to illustrate what a 'Day Without Immigrants' would look like in the US.

43 Moody and Post 2014, p. 308.

Whether these struggles end in victory or defeat is not random. The existence of a layer of experienced and sophisticated activists and leaders, who often learned important lessons confronting bureaucratic business unionists, was crucial to the ability of the Republic workers to carry out their successful sit-in and to the Chicago teachers' success in confronting the Obama-Emmanuel-Duncan neoliberal education agenda.⁴⁴

Conversely, they also argue that the 'absence of such a "militant minority" allowed the labour officials to derail the mass mobilization and discussion of strike action in Wisconsin into the dead-end of Democratic electoral politics'.⁴⁵

Reed and Dudzic also see encouraging developments in the labour movement. However, they have a slightly different emphasis in mind. In addition to looking for developments that can help to rebuild and transform our labour movement, they are also looking for new types of organising activities that will help to build a class-wide political movement that can begin to 'mobilize around an agenda of substantively anti-capitalist reforms that directly and militantly assert the priority of social needs over market forces, bourgeois property rights and managerial prerogative in the workplace'.⁴⁶

With these priorities in mind, Reed and Dudzic note that some of the more forward looking unions are beginning to redefine their battles with their employers 'not as defensive struggles to preserve rights, privileges, benefits and conditions already lost by most of the working class, but as far reaching campaigns for the public good'.⁴⁷ Here the authors point to the Amalgamated Transit Union which has begun to call for free public transportation that is integrated into a planned urban ecosystem, the Utility Workers Union which has called for public ownership of all utilities, and the California Nurses Association/National Nurses United which has consistently linked organising in healthcare to the larger public struggle for quality healthcare for all via a single payer system. They also point out that the American Postal Workers union has notably characterised the current crisis in the postal service as the 'looting of an essential public resource', and they have creatively called for the revival of a postal banking system as a far more equitable alternative to the despicable pay day loan and check cashing industries that have been exploiting the most vulnerable. Like Moody and Post, they also praise the Chicago Teachers Union for 'building a community and labour response to retrenchment and privatization

44 Ibid.

45 Ibid.

46 Reed and Dudzic 2014, p. 365.

47 Reed and Dudzic 2014, p. 368.

of public education that is sparking a wave of victories by union reformers in teachers' unions from Massachusetts to Los Angeles'.⁴⁸

Reed and Dudzic also point to the importance of developing class-wide national campaigns around issues like single payer healthcare, free higher education, liveable wages, the environment, and a systematic reduction in working hours. They see these issue campaigns as ways to begin building a solid working class constituency for both unions and eventual political organisation. In order to make progress on this project, however, Adolph Reed has been consistently and rather courageously calling for the need to move away from identity politics towards a more class-based analysis.

No matter what post-class self-images those who embrace identitarian politics may cherish, it is a politics rooted in neoliberal class dynamics. Its effacement of class as both an analytic and a strategic category dissolves working people's interests as working people – which have no place in neoliberalism – into populations defined by ascription or affinity rather than by location in the system of capitalist reproduction. The groupist discourse of diversity and opposition to disparity enables harmonizing the left's aspirational commitment to equality with neoliberalism's imperatives. From that perspective, the society would be just if one per cent of the population controlled ninety-five percent of the resources so long as significant identity groups were represented proportionately among the one per cent. This is, after all, the goal of liberal equality of opportunity in the market, as articulated historically by both elements of progressive social movements (e.g., a strain of the black civil rights movement and bourgeois feminism) and Becker's neoclassical brief against racial discrimination. It is also the only standard of social justice that neoliberalism recognizes.⁴⁹

Readers who have followed the arguments in my book⁵⁰ will not be surprised to hear that this writer strongly agrees with the above points regarding the need to move away from identity politics and towards a more class-based politics. In my book I have argued that the most analytically powerful way to arrive at the more concrete dynamics of race and gender inequality is precisely through a careful analysis of the political economy of capitalism. Indeed, if we do not

48 Ibid.

49 Reed and Dudzic 2014, p. 362.

50 See Chapter 4 above.

begin with a clear understanding that it is largely the dynamics of capitalist competition and accumulation which provide the basis for both systematic class exploitation and a wide range of wage and employment inequalities among workers within the labour market, it is very difficult to grasp that it is capitalism that is at the heart of the matter. And of course, developing a unified class-based political movement that can effectively take on this inherently unequal system also becomes extremely difficult.

Finally, as old Labor Party organisers, Reed and Dudzic (and this writer) also point to the longer term need for building an independent political organisation that speaks for the working class. As most socialists have always understood, a class-wide political organisation is usually necessary in order to push the labour movement to go beyond the sectional interests of unions within particular industries, and it is the best way to build real solidarity between the employed and the unemployed. A political organisation is also vitally important for developing long-run class-based strategies that can coherently draw the connections between all of the above single issue campaigns. It can also keep us from becoming divided and demoralised when things are not always moving forward and capital temporarily takes the upper hand.

Following the Labor Party's 'organising model of politics', the primary aim of this political organisation would not be to immediately run electoral candidates. However, once serious base-building has taken place and the organisation has developed the necessary working class constituencies that can hold candidates accountable, then it would be time to strategically begin to field serious (not simply protest) candidates who are willing to advance the party's programme. Dudzic and Reed also repeatedly emphasise that it would be premature to build this type of organisation before the labour movement has been seriously revitalised.

In concluding my remarks for this new edition, I will close by departing slightly from my labour party colleagues primarily because of the unprecedented matter of global climate change. Given the growing urgency of climate change, which is very likely to produce a series of increasingly serious environmental and economic crises which will seriously test all of us in the coming decades, we may not have the luxury of waiting until the labour movement is fully back on its feet in order for us to begin to build a viable national political organisation. And as we noted above, crises are only opportunities for positive change, if the left is well-organised and has a significant base within the working class. Otherwise, crises can be very dangerous and extremely ugly.

Given this disturbing context, we may need to move more swiftly and try to build a national political vehicle that is explicitly anti-capitalist and which will help to develop the labour movement as we grow. Most importantly it will also

allow many young people with passionate interests in areas outside of labour to become seriously involved from the ground up. This organisation could provide a political umbrella for radicals and other progressives who understand the limits of working within the Democratic Party and who are deeply interested in a variety of burning issues from global warming to mass incarceration and racial oppression, universal healthcare, education reform, and the battle for workers' rights. This organisational vehicle could provide three important things which are sorely missing from today's largely disconnected single issue campaigns and the periodic episodes of revolt like Occupy and the Wisconsin uprising, which have faced great difficulty sustaining themselves.

First, developing a national organisation would help activists working primarily on single issues to understand in a concrete organisational way that they are not working alone, and that there are many others fighting alongside them on different fronts. Second, such an organisation could enable us to develop a longer term strategy that would allow us to combine all of these issues into a coherent national movement. For example, such a national movement would strive to meaningfully integrate the critical issues of race and gender within the context of class exploitation and working class politics. As Sam Gindin very eloquently explained in a recent article entitled 'Unmaking Global Capitalism',

It was bitterly ironic that at the very moment the state mounted a comprehensive attack on working class power, identity politics was parsing the working class into every more fragmented subgroups. Though identities obviously matter very much, they cannot combine into a new politics because their essence is their separateness. Something else is needed to bring them together in a broader, more integrated and more coherent politics, something beyond the particularistic concerns of both identities and unions. That 'something' is class ... The challenge of class politics is how to bring differences together in ways that generate full respect and equality within the class – from pay equity and fighting workplace discrimination to reproductive rights, socializing family burdens like child-care, and establishing equal status for immigrants – so as to address the larger questions of full equality within society. It is in that sense that class trumps, without underplaying, issues of identity.⁵¹

51 See Gindin 2014.

Finally, a national organisation could do important educational work getting people who are passionately involved in these different issues to understand two key things: (1) that capitalism is fundamentally at the root of almost all of these problems; and (2) that we must begin to build an alternative economic system which is democratically organised around the principles of meeting people's basic needs and respecting the earth, rather than the profits of an increasingly select few.

Here I think that Naomi Klein is absolutely right to argue that accelerating climate change really does 'change everything'.⁵² Not only does it require us to bring this issue to the forefront of our organising efforts alongside the issue of class inequality, but it also provides us with a unique positive opportunity to begin to discuss serious alternatives to capitalism in ways that have not been possible within the US since the 1930s and 1960s.

Almost all prior left labour movements within the industrialised world have been built upon the assumption that the capitalist economy would continue to grow for the foreseeable future, and that the job of the left would be to fight to make sure that the fruits of that growth would be more equitably distributed. Given the context of climate change, however, continued long-term growth can no longer be our working assumption within the advanced industrialised world. It should also become increasingly clear that an economic system which is predicated on maximising private profit, growth and consumption simply cannot be allowed to continue.

As climate change increases, the urgency for restructuring our energy priorities and the critical need for very significant levels of state planning will become more clearly understood. And with the help of a coherent and effective political organisation, we can fight to insure that that planning is democratic and from the bottom up, and that workers who will be losing their jobs will be assured a 'just transition' to alternative employment. We can also begin to seriously rethink how we organise our social lives on virtually every level from work and leisure, to childcare and eldercare, to housing and the overall quality of life within our cities.

And finally, as we push for alternative ways of living which are less driven by private consumption and more based on solidaristic values of community, we will also have to seriously re-evaluate commonly accepted notions of efficiency and cost minimisation which have largely precluded the possibility for meaningful, creative work for the vast majority of working people all over the world. This is also becoming a growing concern among many young people who have

52 Klein 2014.

gone into serious debt to go to college and who aspired to professional jobs like teaching, which are now becoming proletarianised. And of course, all of these employment issues may become seriously compounded if the coming wave of automation via robots and artificial intelligence is as widespread as some experts predict.⁵³

Discussions around all of these critical topics are becoming increasingly common in the light of climate change, and an explicitly anti-capitalist political organisation will be vitally important to bring all of these alternative strands together within a coherent political movement. If the left does not find ways to effectively educate people about the inability of capitalism to solve these profound problems, an authoritarian right will undoubtedly fill the vacuum, and conflicts over declining resources are likely to turn very ugly. Indeed, the recent election of Donald Trump may be just the first step in the US's frightening turn towards authoritarianism.

Despite Trump's victory and despite all of the considerable difficulties that have been outlined in this afterward, I remain guardedly optimistic about the possibilities for building a democratic socialist political movement within the US. Indeed, the unexpected upsurge of enthusiastic support for the openly 'socialist' Bernie Sanders, who received 13 million votes in his contest with the Clinton Democrats, is an important sign that many people are interested in a far more humane and egalitarian future for the US. The left needs to get seriously organised and figure out how to build upon this substantial base of people.

53 For a useful introduction to this issue, see Ford 2015.

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